

ESTIMATED QUANTITIES (ONE INTER. BENT)				
BAR NO.	UNIT LENGTH	TOTAL LENGTH	LOCATION	
801	6	42'-8"	256'-0"	LONGIT. IN CAP
802	8	9'-4"	74'-8"	LONGIT. IN CAP
TOTAL NO. 8 BARS = 330'-8" = 883 LBS.				
601	25	2'-0"	50'-0"	DOWELS
TOTAL NO. 6 BARS = 50'-0" = 75 LBS.				
501	2	42'-8"	85'-4"	LONGIT. IN CAP
TOTAL NO. 5 BARS = 85'-4" = 89 LBS.				
401	56	8'-2"	457'-4"	STIRRUPS IN CAP
402	4	3'-7"	14'-4"	STIRRUPS IN RISER
403	2	2'-9"	5'-6"	LONGIT. IN RISER
TOTAL NO. 4 BARS = 477'-2" = 319 LBS.				
TOTAL DEFORMED REINFORCING STEEL = 1,366 LBS.				
CLASS A1 CONCRETE = 7.23 CU. YDS.				
MAX. PILE LOAD: SERVICE DEAD LOAD = 25 TONS				
SERVICE LIVE LOAD = 31 TONS				
FACTORED TOTAL LOAD = 77 TONS				

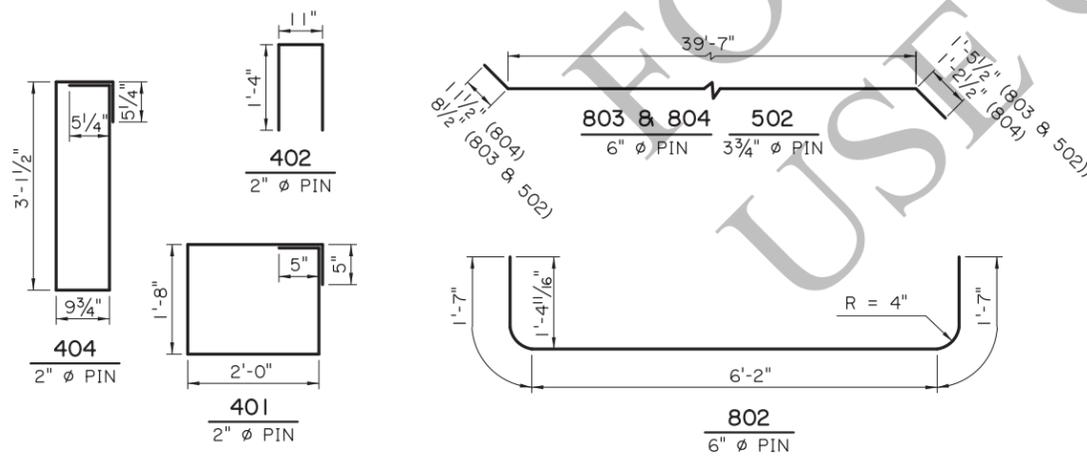
ESTIMATED QUANTITIES (ONE END BENT)				
BAR NO.	UNIT LENGTH	TOTAL LENGTH	LOCATION	
802	8	9'-4"	74'-8"	LONGIT. IN CAP
803	4	41'-9"	167'-0"	LONGIT. IN CAP
804	2	41'-9"	83'-6"	LONGIT. IN CAP
TOTAL NO. 8 BARS = 325'-2" = 868 LBS.				
601	25	2'-0"	50'-0"	DOWELS
TOTAL NO. 6 BARS = 50'-0" = 75 LBS.				
502	2	41'-9"	83'-6"	LONGIT. IN CAP
TOTAL NO. 5 BARS = 83'-6" = 87 LBS.				
401	56	8'-2"	457'-4"	STIRRUPS IN CAP
402	4	3'-7"	14'-4"	STIRRUPS IN RISER
403	2	2'-9"	5'-6"	LONGIT. IN RISER
404	8	8'-9"	70'-0"	STIRRUPS IN WINGWALL
405	8	2'-10"	22'-8"	LONGIT. IN WINGWALL
406	12	4'-0"	48'-0"	LONGIT. IN WINGWALL
TOTAL NO. 4 BARS = 617'-10" = 413 LBS.				
TOTAL DEFORMED REINFORCING STEEL = 1,443 LBS.				
CLASS A1 CONCRETE = 7.89 CU. YDS.				
MAX. PILE LOAD: SERVICE DEAD LOAD = 25 TONS				
FACTORED DEAD LOAD = 31 TONS				
FACTORED LIVE LOAD = 77 TONS				

16" # PPC PILES USED FOR ESTIMATING PURPOSES ONLY. (ADD 0.06 CU. YDS. OF CLASS A1 CONCRETE PER BENT WHEN 14" # PPC PILES ARE USED.)

AS-DESIGNED RATING		
VEHICLE	RATING FACTOR	NOTES
HL-93 (INV)	1.486	
HL-93 (OPR)	1.927	
LADV-11 (INV)	1.143	MAGNIFICATION FACTOR = 1.3

NOTES:
 DESIGN SPECIFICATIONS: AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS 4th EDITION, WITH 2008 & 2009 INTERIMS.
 DESIGN LOAD: LIVE LOAD IS HL-93, AND LADV-11 (LOUISIANA DESIGN VEHICLE LIVE LOAD 2011).
 STRUCTURAL CONCRETE: ALL CONCRETE SHALL BE CLASS A1. EXPOSED EDGES SHALL HAVE A 3/4" CHAMFER UNLESS SPECIFIED OTHERWISE. ALL EXPOSED FACES OF WINGWALLS AND ENDS OF CAPS SHALL RECEIVE A SURFACE FINISH AS PER THE SPECIFICATIONS UNLESS SPECIFIED OTHERWISE.

REINFORCING STEEL: ALL REINFORCING SHALL BE GRADE 60. DIMENSIONS RELATING TO FABRICATION ARE OUT TO OUT OF BARS, UNLESS SPECIFIED OTHERWISE. DIMENSIONS RELATING TO SPACING ARE TO BAR CENTERS, UNLESS SPECIFIED OTHERWISE. DOWELS (601 BARS) SHALL BE PROVIDED AT ALL FIXED BEARINGS AND APPROACH SLAB BEARINGS (SEE GENERAL PLAN). ALL EXPOSED ENDS OF DOWELS SHALL BE WRAPPED WITH TWO LAYERS OF 15 LB. ASPHALT SATURATED FELT. CLOSE FITTING TUBES OF COMPRESSIBLE MATERIAL NOT LESS THAN 3/16" THICK MAY BE SUBSTITUTED.
PRECAST CONCRETE PILES: CONFORM TO PILE STANDARD PLAN AND PROJECT PLANS FOR FABRICATION AND INSTALLATION. PILES WILL BE PAID FOR UNDER THE DESIGNATED PILE PAY ITEMS.
PREFORMED JOINT MATERIAL: PREFORMED JOINT MATERIAL SHALL BE IN ACCORDANCE WITH THE SPECIFICATIONS.
PAYMENT: ALL OTHER WORK WILL BE PAID FOR UNDER THE DESIGNATED BRIDGE SUPERSTRUCTURE AND SUBSTRUCTURE PAY ITEM AND IN ACCORDANCE WITH THE SPECIFICATIONS.



SHEET NUMBER: _____

DESIGN: B. DELATTE
 CHECK: J. NAKHLEH
 PARISH: _____

DETAIL: D. HYVEL
 CHECK: J. NAKHLEH
 CONTROL SECTION: _____

REVIEW: _____
 STATE PROJECT: _____

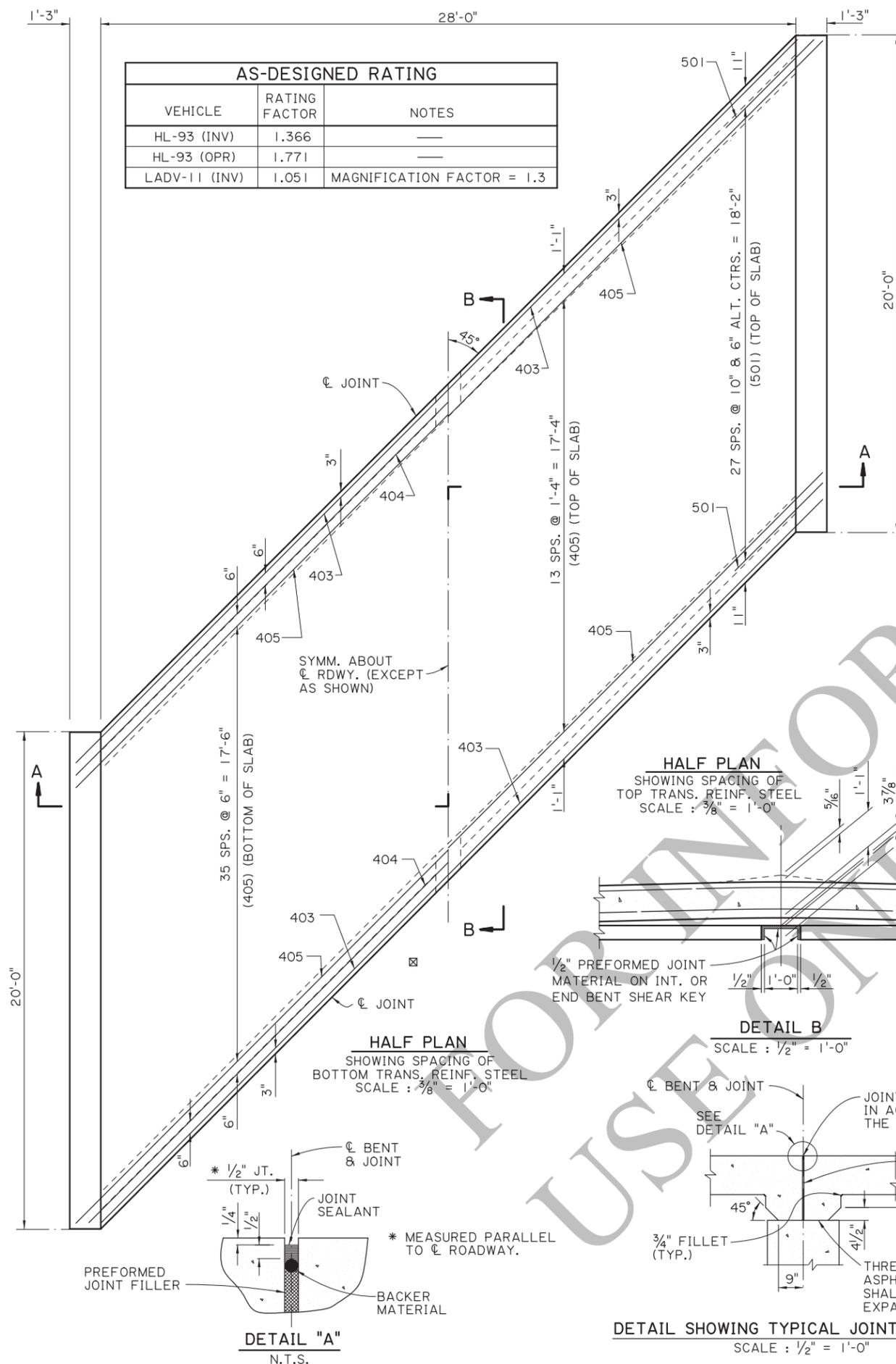
APPROVED BY CHIEF ENGINEER: _____
 DATE: 12/01/2025

REVISION OR CHANGE ORDER DESCRIPTION: _____

BY: _____ DATE: _____

NO. _____

STATE OF LOUISIANA
 REINFORCED CONCRETE PILE BENTS
 28'-0" CLEAR ROADWAY
 45° CROSSING TWO WAY TANGENT
 PSS-45-28-20SL
 STANDARD PLAN



AS-DESIGNED RATING		
VEHICLE	RATING FACTOR	NOTES
HL-93 (INV)	1.366	---
HL-93 (OPR)	1.771	---
LADV-II (INV)	1.051	MAGNIFICATION FACTOR = 1.3

SPAN NOTES:

DESIGN SPECIFICATIONS:
AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 4th EDITION.
WITH 2008 & 2009 INTERIMS.

DESIGN LOADS:
THE BRIDGE DECK IS DESIGNED FOR A FUTURE WEARING
COURSE OF 19 PSF. THE LIVE LOAD IS HL-93, AND LADV-II
(LOUISIANA DESIGN VEHICLE LIVE LOAD 2011).

STRUCTURAL CONCRETE:
ALL CONCRETE SHALL BE CLASS A1. EXPOSED EDGES SHALL HAVE
A 3/4" CHAMFER UNLESS SPECIFIED OTHERWISE. ALL BARRIER RAIL
SURFACES ARE TO RECEIVE A CLASS 3 SPECIAL SURFACE FINISH.

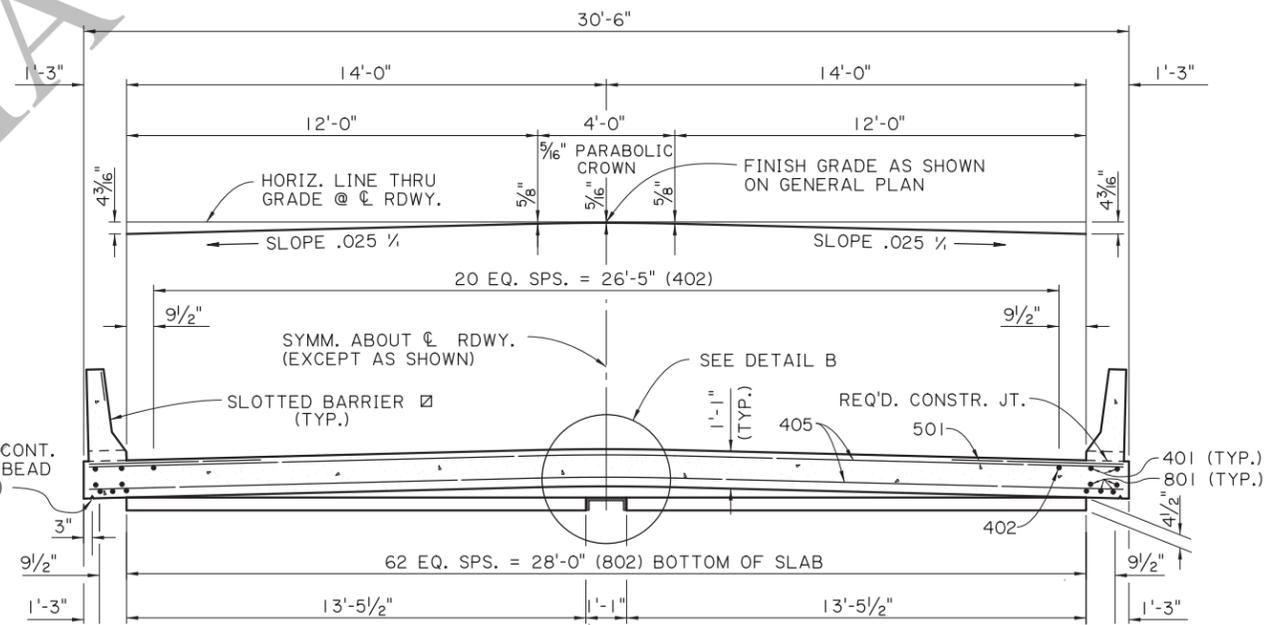
REINFORCING STEEL:
ALL REINFORCING SHALL BE GRADE 60; DIMENSIONS RELATING TO
SPACING ARE TO BAR CENTERS, DIMENSIONS RELATING TO FABRICATION
ARE OUT TO OUT OF BARS, UNLESS SPECIFIED OTHERWISE. ALL
REINFORCING BARS SHALL BE PLACED TO PROVIDE A MINIMUM
COVER OF ONE INCH FROM THE SURFACE OF THE DRAIN HOLES TO
THE FACE OF THE BARS.

GUARD RAIL:
CONFORM TO PROJECT PLANS AND GUARD RAIL STANDARD PLANS.

PAYMENT:
ALL WORK WILL BE PAID FOR UNDER THE DESIGNATED BRIDGE
SUPERSTRUCTURE AND SUBSTRUCTURE PAY ITEM AND IN ACCORDANCE
WITH THE SPECIFICATIONS.

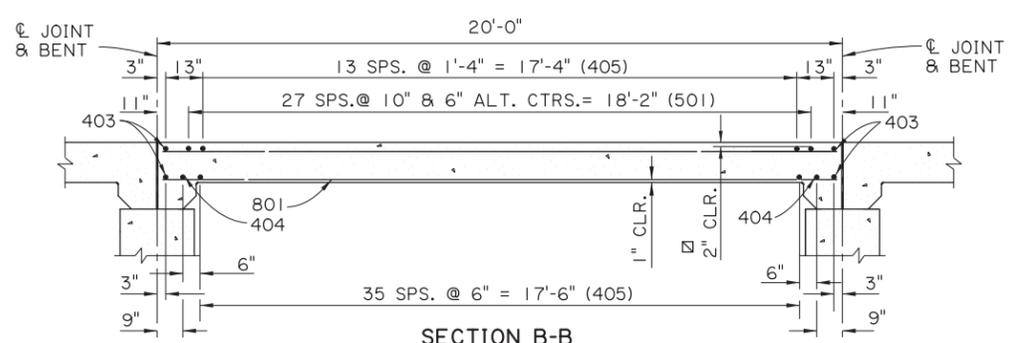
ESTIMATED QUANTITIES (ONE SPAN)				
BAR NO.	NO.	UNIT LENGTH	TOTAL LENGTH	LOCATION
801	8	19'-7"	156'-8"	LONGIT. BOT. OF SLAB
802	63	19'-5"	1223'-3"	LONGIT. BOT. OF SLAB
TOTAL NO. 8 BARS = 1379'-11" = 3685 LBS.				
501	56	5'-0"	280'-0"	TRANS. TOP OF SLAB
TOTAL NO. 5 BARS = 280'-0" = 292 LBS.				
401	4	19'-7"	78'-4"	LONGIT. TOP OF SLAB
402	21	19'-5"	407'-9"	LONGIT. TOP OF SLAB
* 403	4	42'-10"	171'-4"	TRANS. TOP & BOT. OF SLAB
* 404	2	43'-7"	87'-2"	TRANS. BOT. OF SLAB
* 405	50	44'-3"	2212'-6"	TRANS. TOP & BOT. OF SLAB
TOTAL NO. 4 BARS = 2957'-1" = 1975 LBS.				
TOTAL DEFORMED REINFORCING STEEL = 5952 LBS.				
CLASS A1 CONCRETE = 25.48 CU. YDS.				
CONCRETE RAILING (BARRIER TYPE) = 40.00 LIN. FT.				

* INCLUDES ONE (1) 1'-8" MINIMUM LAP SPLICE.
ALL LAP SPLICES TO BE STAGGERED.



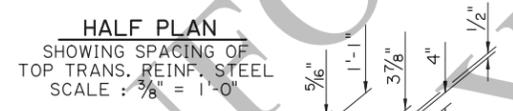
SECTION A-A
SCALE: 3/8" = 1'-0"

STANDARD BARRIERS REQUIRED
ON END SPANS.

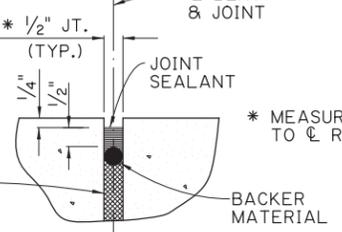


SECTION B-B
SCALE: 3/8" = 1'-0"

FOR BRIDGES IN DISTRICTS
04 & 05, MIN. CONCRETE COVER
IN TOP OF SLAB SHALL BE 2 1/2".



DETAIL SHOWING TYPICAL JOINT & HAUNCH
SCALE: 1/2" = 1'-0"



DETAIL "A"
N.T.S.

SHEET NUMBER

DESIGN: J. NAKHLEH
CHECK: B. DELATTE
DETAIL: D. HYMEL
CHECK: J. NAKHLEH
REVIEW: [Signature]
SERIES: 12 OF 13

APPROVED BY CHIEF ENGINEER: [Signature]
DATE: 12/10/2025

REVISION OR CHANGE ORDER DESCRIPTION

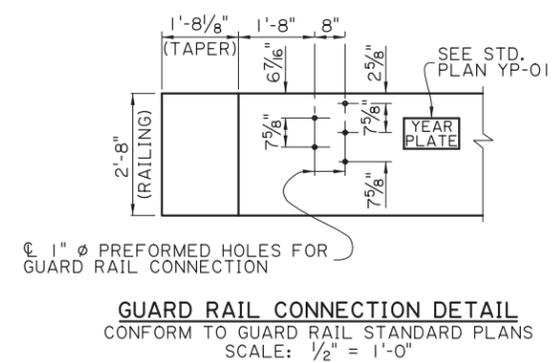
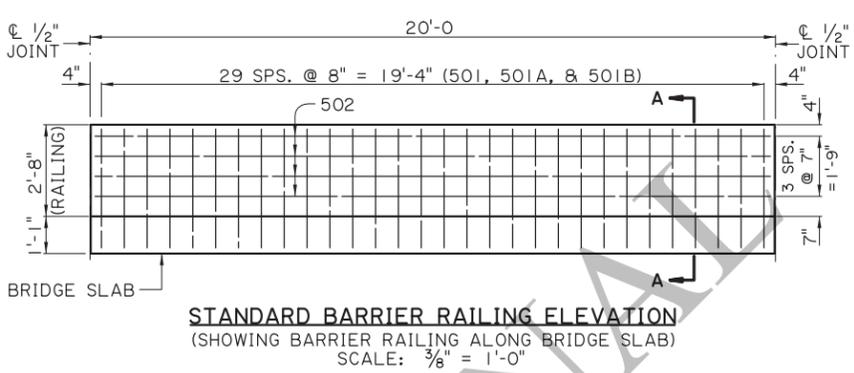
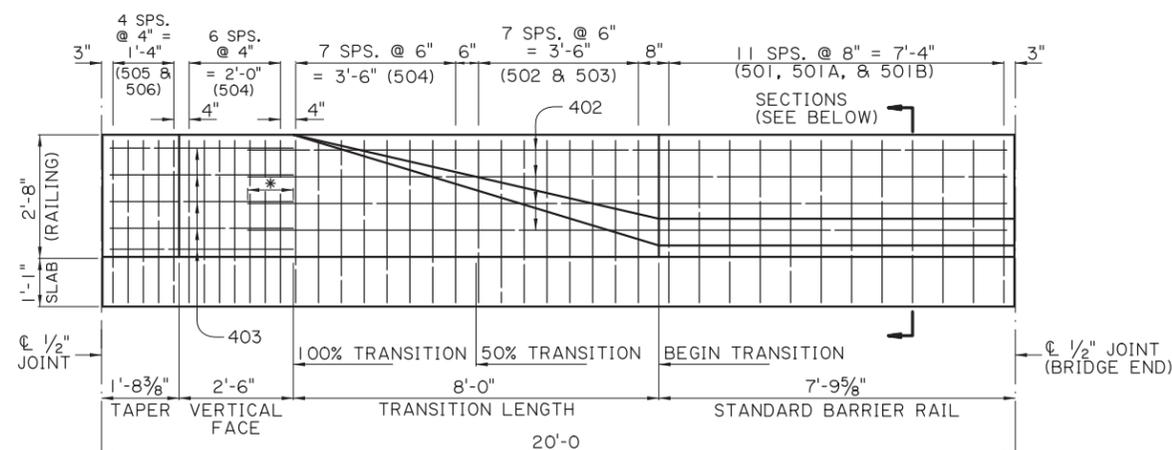
NO. DATE

STATE OF LOUISIANA
TRANSPORTATION & DEVELOPMENT

SPAN (1 OF 2)
20'-0" CONCRETE SLAB SPAN
28'-0" CLEAR ROADWAY
45° CROSSING TWO WAY TANGENT
PSS-45-28-20SL

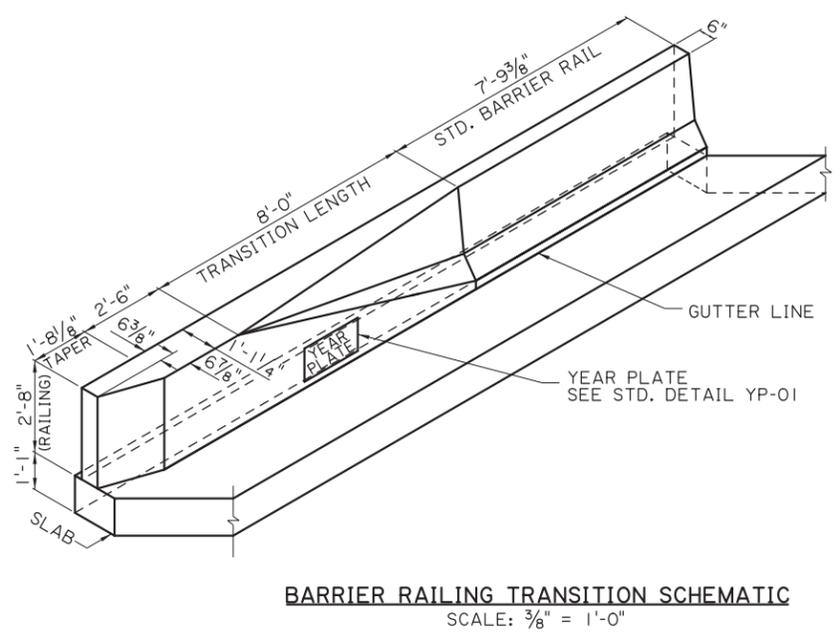
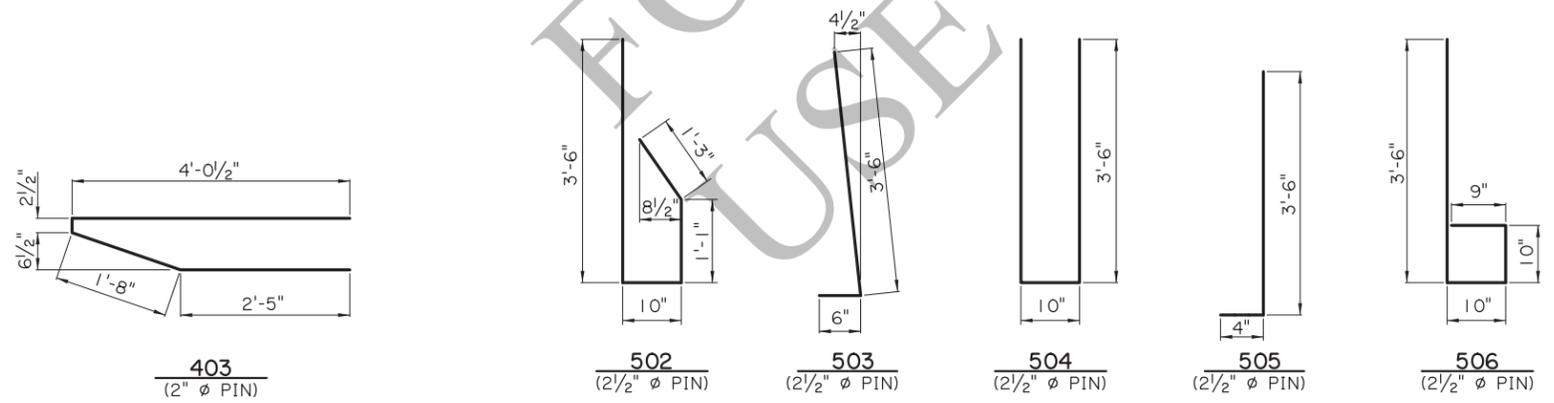
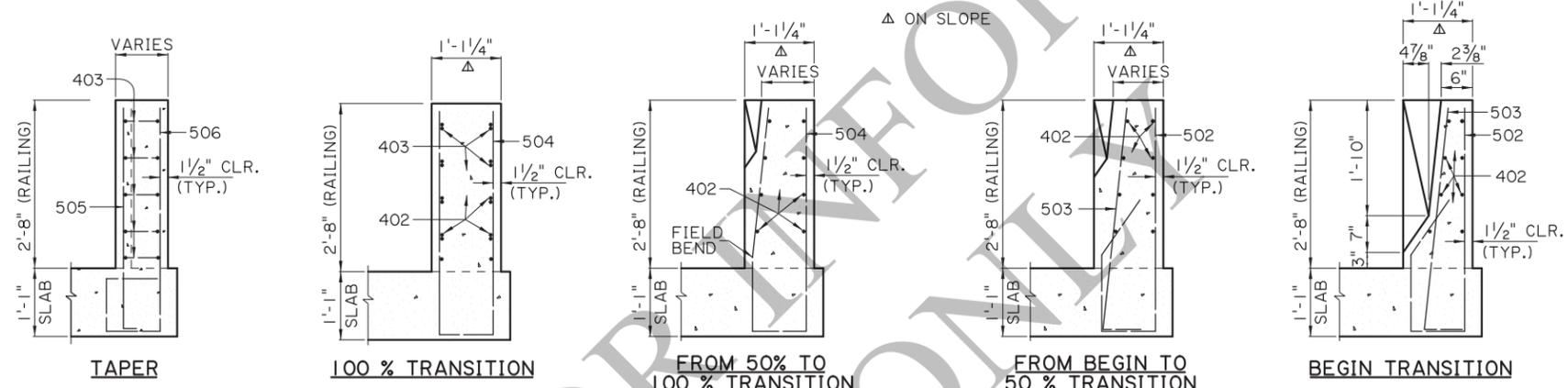
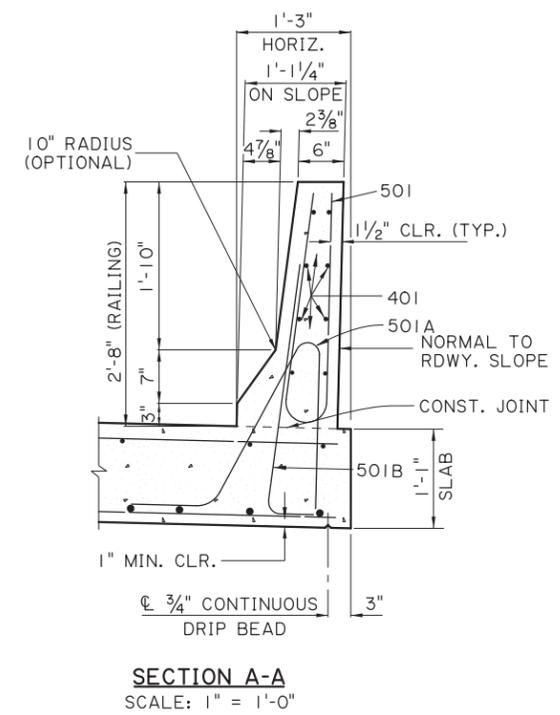
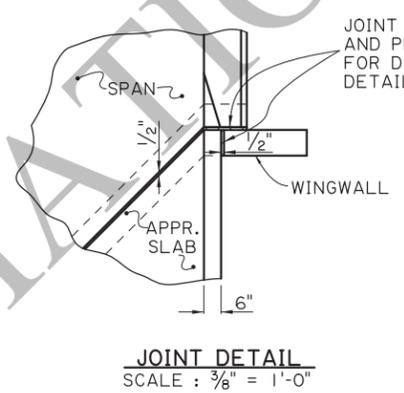
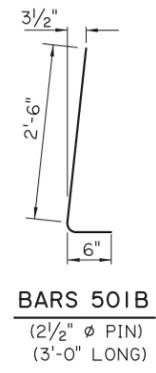
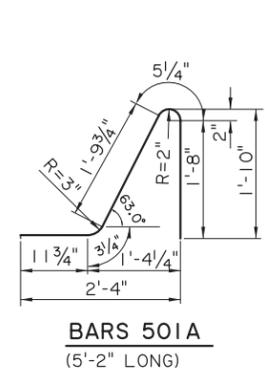
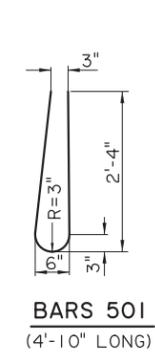
DOTD
LOUISIANA DEPARTMENT OF
TRANSPORTATION & DEVELOPMENT

STANDARD PLAN

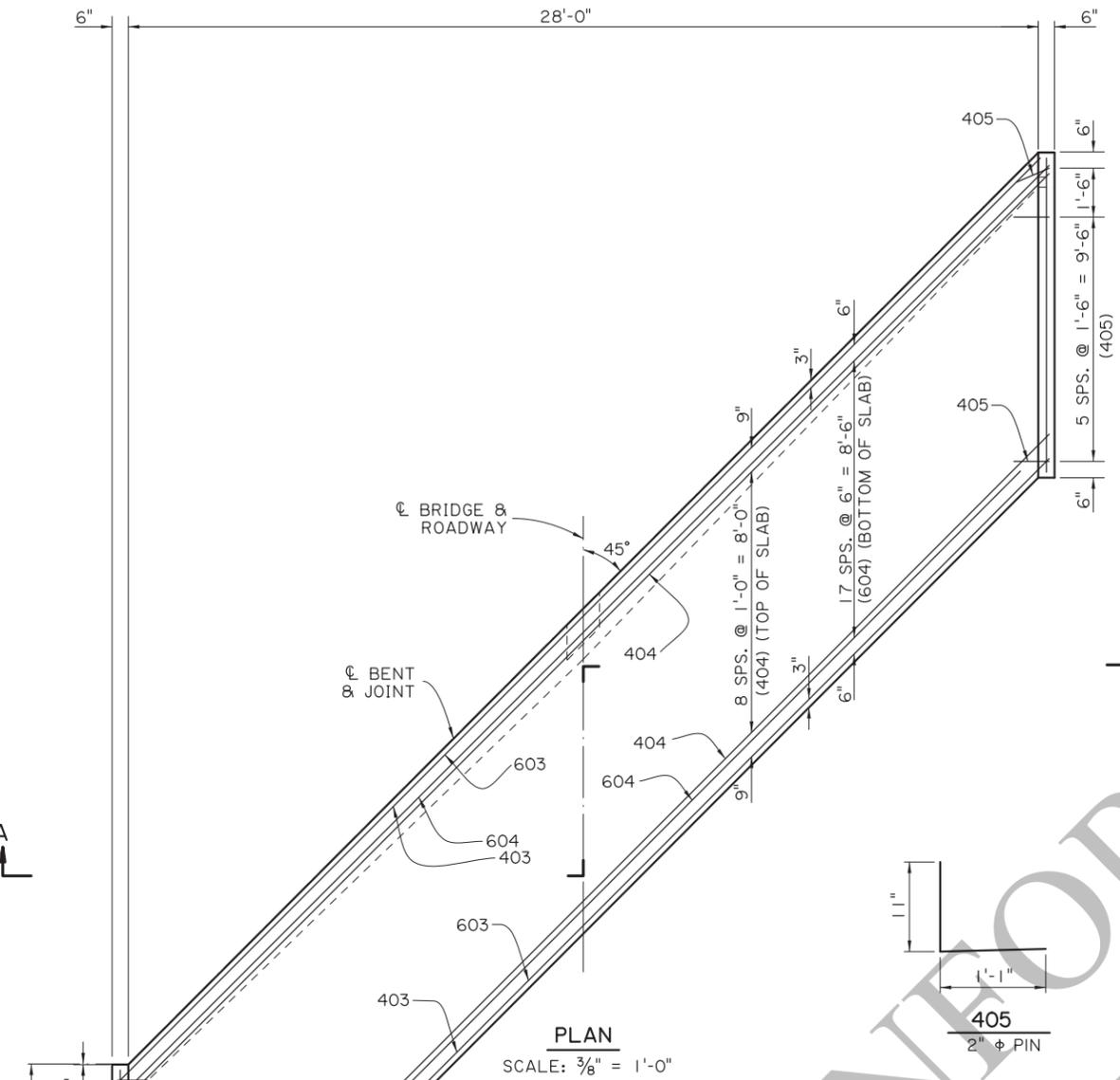


* 1'-0" (MIN.) SPLICE

BARRIER RAILING TRANSITION ELEVATION
(SHOWING BARRIER RAILING AT END OF BRIDGE)
SCALE: 1/2" = 1'-0"



SHEET NUMBER		PARISH		CONTROL SECTION		STATE PROJECT	
DESIGN	J. NAKHLEH	CHECK	B. DELATTE	DETAIL	D. HYMEL	CHECK	J. NAKHLEH
REVIEW		DATE		SERIES	3 OF 13	DATE: 12/10/2025	
APPROVED BY CHIEF ENGINEER:							
REVISION OR CHANGE ORDER DESCRIPTION							
NO. DATE							
SPAN (2 OF 2) 20'-0" CONCRETE BARRIER 28'-0" CLEAR ROADWAY 45° CROSSING TWO WAY TANGENT PSS-45-28-20SL							
STANDARD PLAN							



APPROACH SLAB NOTES:

DESIGN SPECIFICATIONS: AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 4th EDITION, WITH 2008 & 2009 INTERIMS.

STRUCTURAL CONCRETE: ALL CONCRETE SHALL BE CLASS A1. EXPOSED EDGES SHALL HAVE A 3/4" CHAMFER, UNLESS SPECIFIED OTHERWISE.

REINFORCING STEEL: ALL REINFORCING STEEL SHALL BE GRADE 60. DIMENSIONS RELATING TO THE FABRICATION ARE OUT-TO-OUT OF BARS, UNLESS SPECIFIED OTHERWISE. DIMENSIONS RELATING TO SPACING ARE TO BAR CENTERS, UNLESS SPECIFIED OTHERWISE.

BEDDING MATERIAL: FOR DETAILS OF BEDDING MATERIAL AND UNDERDRAINS SEE APPROACH SLAB STANDARD DETAILS.

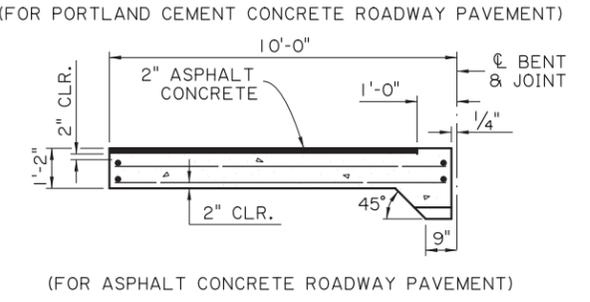
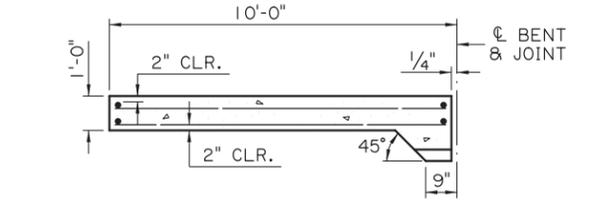
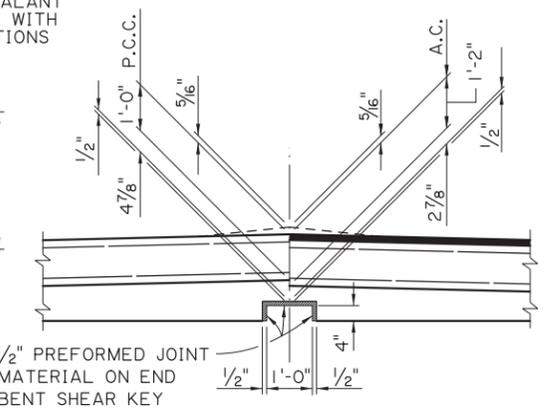
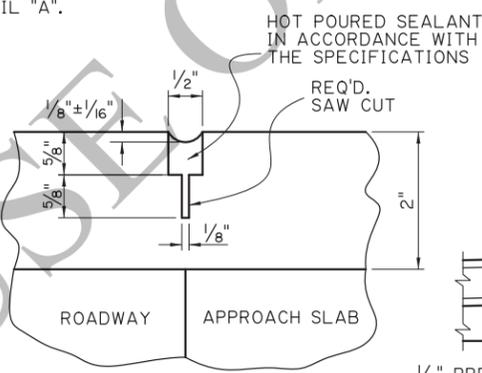
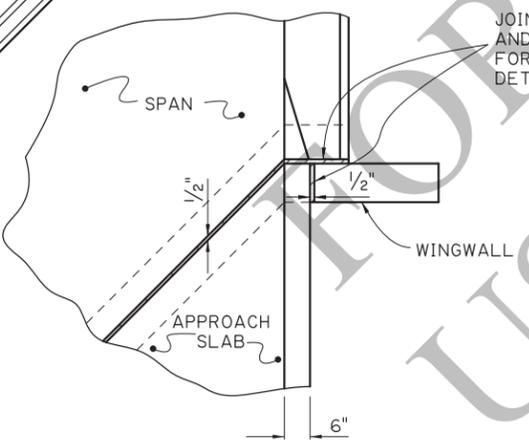
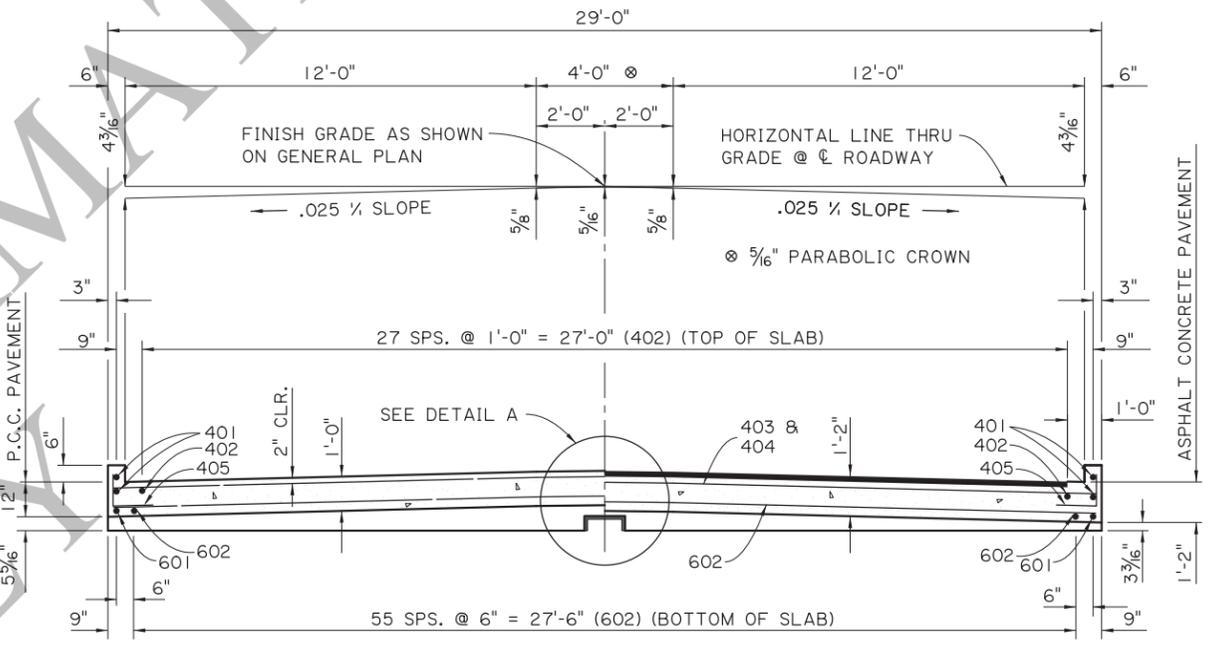
SAWING & SEALING: THE ASPHALT CONCRETE SHALL BE SAW CUT AT THE END OF THE CONCRETE APPROACH SLAB THE ENTIRE ROADWAY WIDTH AND SEALED WHICH WILL BE PAID FOR UNDER THE DESIGNATED ROADWAY PAY ITEM.

PAYMENT: ALL OTHER WORK WILL BE PAID FOR UNDER THE DESIGNATED BRIDGE CONCRETE APPROACH SLAB PAY ITEM AND IN ACCORDANCE WITH THE SPECIFICATIONS.

ESTIMATED QUANTITIES (ONE SLAB)

BAR NO.	UNIT LENGTH	TOTAL LENGTH	LOCATION	
601	2	9'-7"	19'-2"	LONGIT. BOT. OF SLAB
602	56	9'-6"	532'-0"	LONGIT. BOT. OF SLAB
603	2	40'-1"	80'-2"	TRANSV. BOT. OF SLAB
604	18	40'-6"	729'-0"	TRANSV. BOT. OF SLAB
TOTAL NO. 6 BARS = 1360'-4" = 2,043 LBS.				
401	4	9'-7"	38'-4"	LONGIT. TOP OF SLAB & CURB
402	28	9'-6"	266'-0"	LONGIT. TOP OF SLAB
403	2	41'-9"	83'-6"	TRANSV. TOP OF SLAB
404	9	42'-2"	379'-6"	TRANSV. TOP OF SLAB
405	14	2'-0"	28'-0"	DOWELS IN CURB
TOTAL NO. 4 BARS = 795'-4" = 531 LBS.				
TOTAL DEFORMED REINFORCING STEEL = 2,574 LBS.				
CONCRETE APPROACH SLAB = 32.22 SQ. YDS.				
ASPHALT CONCRETE = 3.0 TONS				
SAW CUT & SEAL = 38 LIN. FT.				

- TO BE PAID FOR UNDER ITEM CONCRETE APPROACH SLABS.
- * INCLUDES ONE (1) 1'-8" MINIMUM LAP SPLICE. ALL LAP SPLICES ARE TO BE STAGGERED.
- ☒ REQUIRED WHEN APPROACH SLAB IS ADJACENT TO ASPHALT CONCRETE PAVEMENT.



STATE OF LOUISIANA
DEPARTMENT OF TRANSPORTATION & DEVELOPMENT

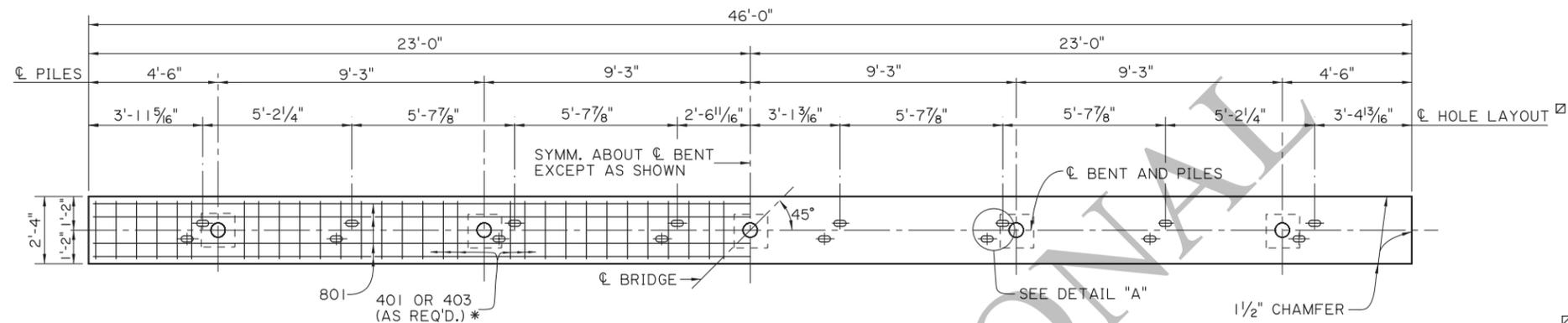
APPROACH SLAB CONCRETE APPROACH SLAB
28'-0" CLEAR ROADWAY
45° CROSSING TWO WAY TANGENT

STANDARD PLAN

DESIGN: J. NAKHLEH
CHECK: B. DELATTE
DETAIL: D. HYMEL
CHECK: J. NAKHLEH
REVIEW: [Signature]
SERIES: 4 OF 13

DATE: 12/10/2025

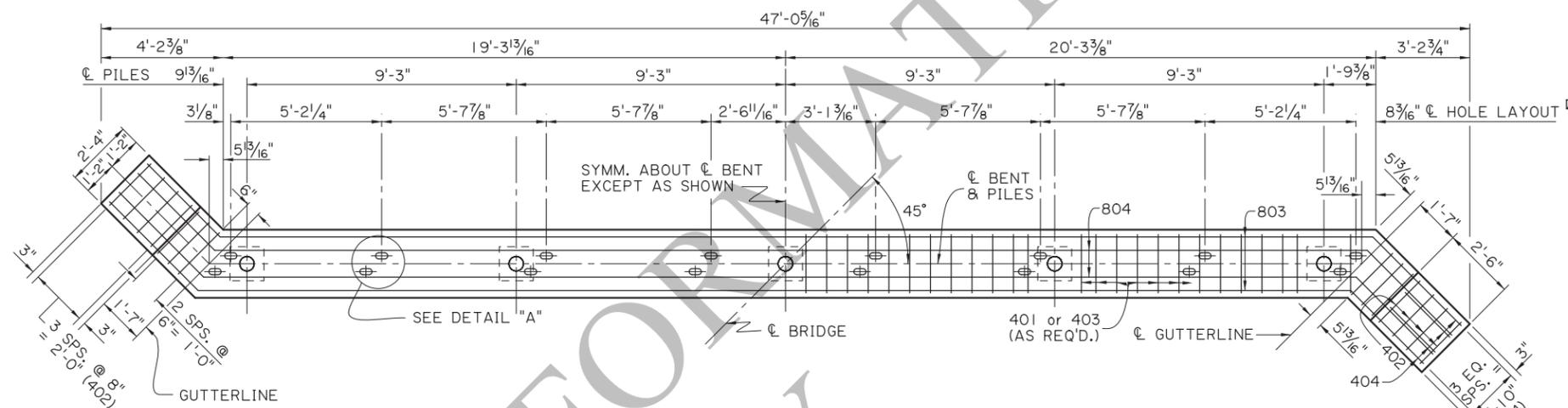
REVISION OR CHANGE ORDER DESCRIPTION



PLAN - INTERMEDIATE BENT

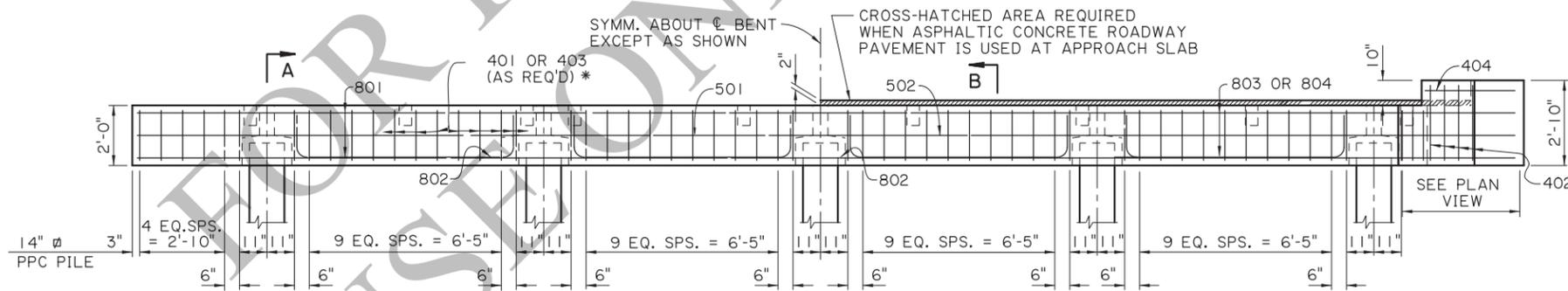
SCALE 3/8" = 1'-0"

☐ HOLES ARE OPTIONAL AT EXPANSION ENDS.



PLAN - END BENT

SCALE 3/8" = 1'-0"



HALF ELEVATION - INTERMEDIATE BENT

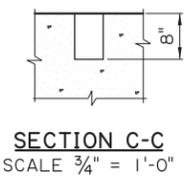
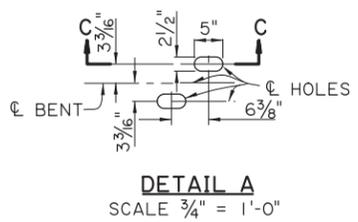
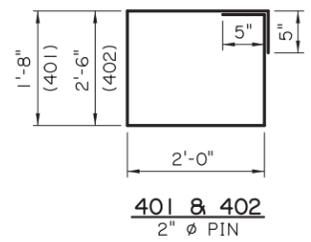
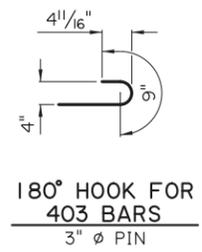
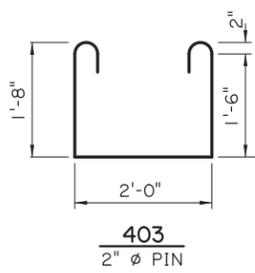
SCALE 3/8" = 1'-0"

HALF ELEVATION - END BENT

SCALE 3/8" = 1'-0"

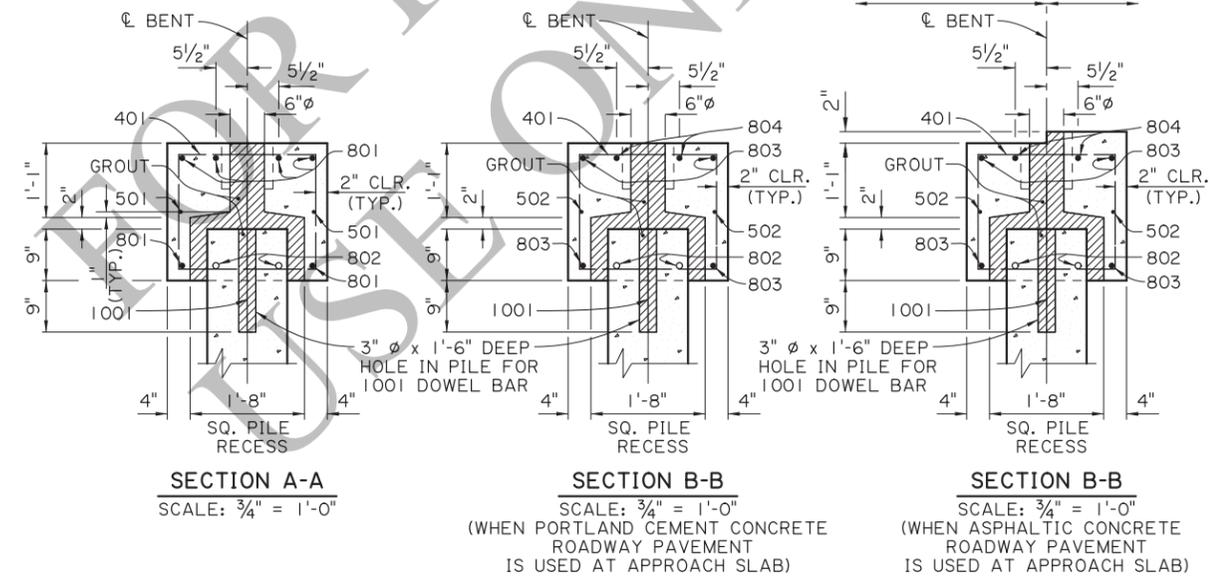
* USE 403 BARS AT HOLES ONLY

SHEET NUMBER		PARISH		CONTROL SECTION		STATE PROJECT	
DESIGN	B. DELATTE	CHECK	J. NAKHLEH	DRAWING	D. HYMEL	REVIEW	J. NAKHLEH
APPROVED BY CHIEF ENGINEER:		DATE: 12/10/2025		REVISION OR CHANGE ORDER DESCRIPTION		NO. DATE	
ALTERNATE BENTS (1 OF 2)		PRECAST CONCRETE BENTS		28'-0" CLEAR ROADWAY		45° CROSSING TWO WAY TANGENT	
DOTD		LOUISIANA DEPARTMENT OF TRANSPORTATION & DEVELOPMENT		STANDARD PLAN		PSS-45-28-20SL	



ALTERNATE BENT NOTES:

DESIGN SPECIFICATIONS: AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 4th EDITION, WITH 2008 & 2009 INTERIMS.
DESIGN LOAD: LIVE LOAD IS HL-93, AND LADV-11 (LOUISIANA DESIGN VEHICLE LIVE LOAD 2011).
STRUCTURAL CONCRETE: ALL CONCRETE SHALL BE CLASS P1. STEEL SIDE FORMS AND STEEL OR CONCRETE BOTTOM FORMS SHALL BE USED FOR PRECAST COMPONENTS. EXPOSED EDGES SHALL HAVE A 3/4" CHAMFER UNLESS SPECIFIED OTHERWISE. ALL SURFACES SHALL RECEIVE A CLASS I ORDINARY SURFACE FINISH UPON REMOVAL OF THE FORMS. ALL EXPOSED FACES OF WINGWALLS AND ENDS OF CAPS SHALL RECEIVE A CLASS 3 SPECIAL SURFACE FINISH.
REINFORCING STEEL: ALL REINFORCING SHALL BE GRADE 60. DIMENSIONS RELATING TO FABRICATION ARE OUT TO OUT OF BARS, UNLESS SPECIFIED OTHERWISE. DIMENSIONS RELATING TO SPACING ARE TO BAR CENTERS, UNLESS SPECIFIED OTHERWISE.
GROUT: THE GROUT SHALL BE AN APPROVED FLOWABLE NON-SHRINK GROUT LISTED ON AML. THE GROUT SHALL BE TESTED FOR ACCEPTANCE PRIOR TO USAGE. SURFACES SHALL BE THOROUGHLY SATURATED WITH WATER BY FLOODING THE VOID FOR APPROXIMATELY 5 MINUTES IMMEDIATELY BEFORE THE GROUT IS PLACED. ONLY POTABLE WATER SHALL BE USED FOR SATURATION AND MIXING PURPOSES.
PRECAST UNITS: THE PLANS FOR AN ONGOING OPERATION OF FABRICATING FACILITIES SHALL BE APPROVED BY THE DEPARTMENT. EACH UNIT SHALL HAVE THE FABRICATOR'S MARK AND UNIQUE NUMBER, MEETING THE APPROVAL OF THE ENGINEER, STAMPED OR SCRIBED IN THE PLASTIC CONCRETE. ALL UNITS SHALL BE HELD AT THE PLANT FOR A MINIMUM OF 10 DAYS AFTER CASTING. THE CONCRETE SHALL REACH A MINIMUM STRENGTH OF 3,000 PSI BEFORE HANDLING IS PERMITTED. THE LIFTING INSERTS SHALL BE 1" TYPE S INSERTS AS MANUFACTURED BY DAYTON-SUPERIOR CORPORATION OR AN APPROVED EQUAL. EACH INSERT SHALL HAVE A MINIMUM LOAD CAPACITY OF 10,000 POUNDS. FOUR INSERTS WITH 1" Ø x 5" LONG COIL BOLTS SHALL BE PLACED IN THE TOP OF THE UNITS AND LOCATED AT A DISTANCE 21% OF ITS LENGTH (+/- 6") FROM EACH END AND 6" FROM THE EDGES. INSERT HOLES SHALL BE GROUT FILLED AFTER PLACEMENT OF THE UNIT. AT THE CONTRACTOR'S OPTION, A SLING OF SUFFICIENT CAPACITY MAY BE USED FOR LIFTING, PROVIDED THE SAME PICKUP LOCATIONS FROM THE ENDS ARE USED.
PRECAST CONCRETE PILES: CONFORM TO PILE STANDARD PLAN AND PROJECT PLANS FOR FABRICATION AND INSTALLATION. IF TOP CENTER OF DRIVEN PILE IS OUTSIDE OF SPECIFIED HORIZONTAL TOLERANCES BUT WITHIN SPECIFIED VERTICAL TOLERANCES, PROVIDE CAST-IN-PLACE BENT CAP IN ACCORDANCE WITH THIS STANDARD PLAN. PILES WILL BE PAID FOR UNDER THE DESIGNATED PILE PAY ITEMS.
PAYMENT: ALL OTHER WORK WILL BE PAID FOR UNDER THE DESIGNATED BRIDGE SUPERSTRUCTURE AND SUBSTRUCTURE PAY ITEM AND IN ACCORDANCE WITH THE SPECIFICATIONS.



ESTIMATED QUANTITIES (ONE INTER. BENT)				
BAR NO.	NO.	UNIT LENGTH	TOTAL LENGTH	LOCATION
1001	5	2'-4"	11'-8"	DOWELS IN PILES
TOTAL NO. 10 BARS = 11'-8" = 50 LBS.				
801	6	45'-8"	274'-0"	LONGIT. IN CAP
802	8	9'-9"	78'-0"	LONGIT. IN CAP BTW. PILES
TOTAL NO. 8 BARS = 352'-0" = 940 LBS.				
501	2	45'-8"	91'-4"	LONGIT. IN CAP
TOTAL NO. 5 BARS = 91'-4" = 95 LBS.				
401	52	8'-2"	424'-8"	STIRRUPS IN CAP
403	8	6'-6"	52'-0"	STIRRUPS IN CAP
TOTAL NO. 4 BARS = 476'-8" = 318 LBS.				
TOTAL DEFORMED REINFORCING STEEL = 1403 LBS.				
TOTAL CLASS P1 CONCRETE = 7.39 CU. YDS.				
MAX. PILE LOAD: SERVICE DEAD LOAD = 22 TONS				
SERVICE LIVE LOAD = 33 TONS				
FACTORED TOTAL LOAD = 76 TONS				
TOTAL GROUT FOR PILE RECESSES = 0.36 CU. YDS.				

ESTIMATED QUANTITIES (ONE END BENT)				
BAR NO.	NO.	UNIT LENGTH	TOTAL LENGTH	LOCATION
1001	5	2'-4"	11'-8"	DOWELS IN PILES
TOTAL NO. 10 BARS = 11'-8" = 50 LBS.				
802	8	9'-9"	78'-0"	LONGIT. IN CAP BTW. PILES
803	4	47'-5"	189'-8"	LONGIT. IN CAP
804	2	47'-5"	94'-10"	LONGIT. IN CAP
TOTAL NO. 8 BARS = 362'-6" = 968 LBS.				
502	2	47'-7"	94'-10"	LONGIT. IN CAP
TOTAL NO. 5 BARS = 94'-10" = 99 LBS.				
401	48	8'-2"	392'-0"	STIRRUPS IN CAP
402	8	9'-10"	78'-8"	STIRRUPS IN WINGWALL
403	8	6'-6"	52'-0"	STIRRUPS IN CAP
404	8	2'-2"	17'-4"	LONGIT. IN WINGWALL
TOTAL NO. 4 BARS = 540'-0" = 361 LBS.				
TOTAL DEFORMED REINFORCING STEEL = 1,478 LBS.				
TOTAL CLASS P1 CONCRETE = 8.05 CU. YDS.				
MAX. PILE LOAD: SERVICE DEAD LOAD = 22 TONS				
SERVICE LIVE LOAD = 33 TONS				
FACTORED TOTAL LOAD = 76 TONS				
TOTAL GROUT FOR PILE RECESSES = 0.36 CU. YDS.				

⊗ ADD 0.31 CU. YDS. OF CLASS P1 CONCRETE PER BENT WHEN ASPHALTIC CONCRETE ROADWAY PAVEMENT IS USED AT APPROACH SLAB.

AS-DESIGNED RATING		
VEHICLE	RATING FACTOR	NOTES
HL-93 (INV)	1.605	
HL-93 (OPR)	2.081	
LADV-11 (INV)	1.235	MAGNIFICATION FACTOR = 1.3

SHEET NUMBER

DESIGN: B. DELATTE
CHECK: J. NAKHLEH

PARISH: _____

CONTROL SECTION: _____

STATE: _____

PROJECT: _____

APPROVED BY CHIEF ENGINEER: _____

DATE: 12/10/2025

REVISION OR CHANGE ORDER DESCRIPTION

NO. _____ DATE _____ BY _____

STATE OF LOUISIANA
DEPARTMENT OF TRANSPORTATION & DEVELOPMENT

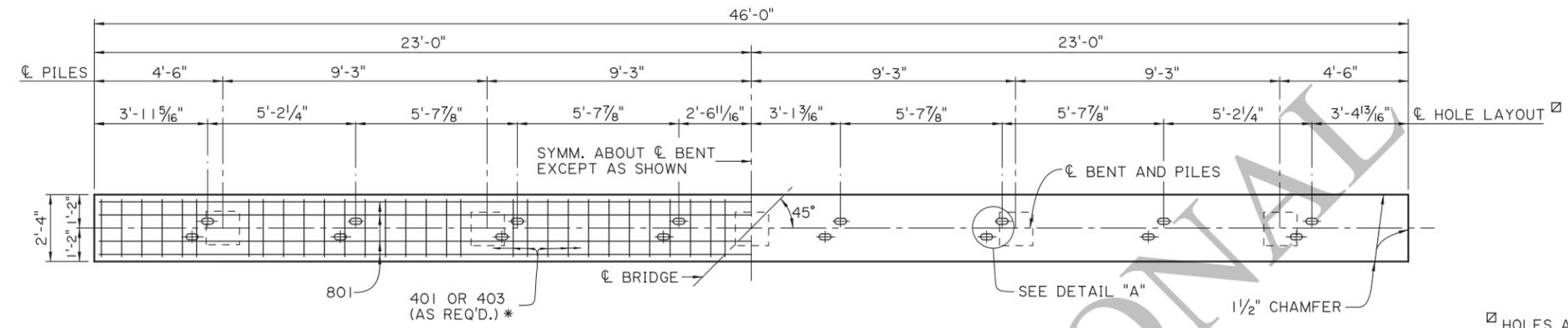
ALTERNATE BENTS (2 OF 2)
PRECAST CONCRETE BENTS

28'-0" CLEAR ROADWAY
45° CROSSING TWO WAY TANGENT

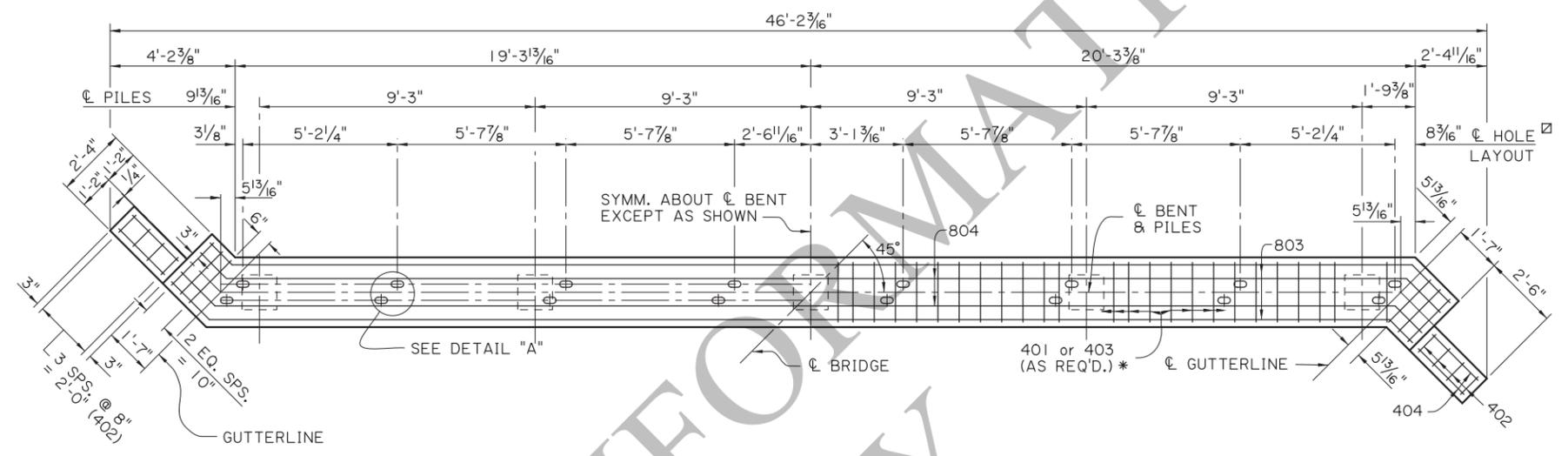
PSS-45-28-20SL

DOTD
LOUISIANA DEPARTMENT OF TRANSPORTATION & DEVELOPMENT

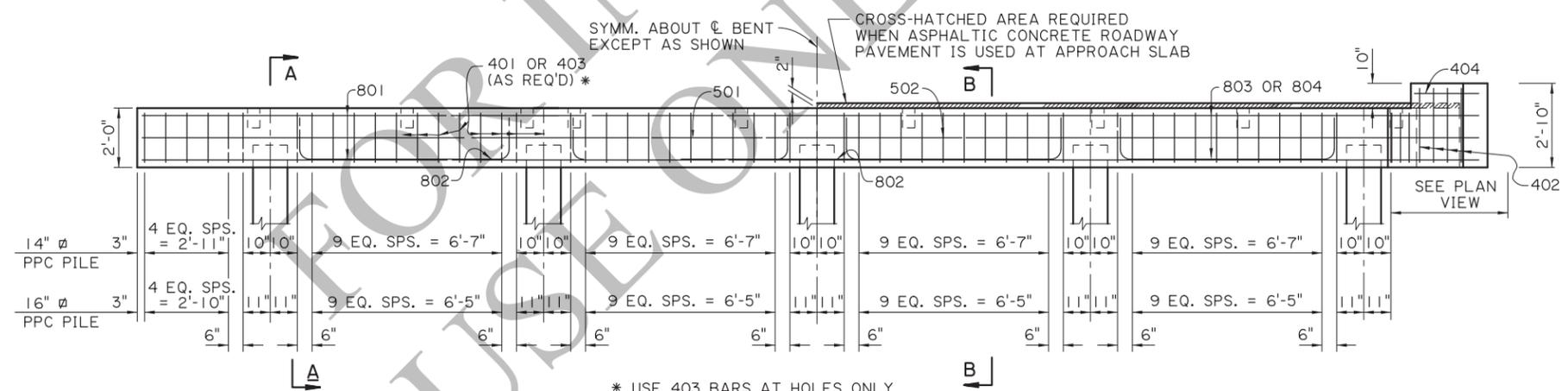
STANDARD PLAN



PLAN - INTERMEDIATE BENT
SCALE 3/8" = 1'-0"



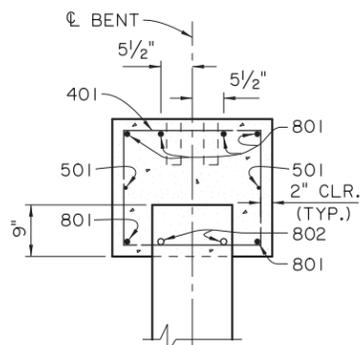
PLAN - END BENT
SCALE 3/8" = 1'-0"



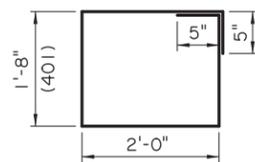
HALF ELEVATION - INTERMEDIATE BENT
SCALE 3/8" = 1'-0"

HALF ELEVATION - END BENT
SCALE 3/8" = 1'-0"

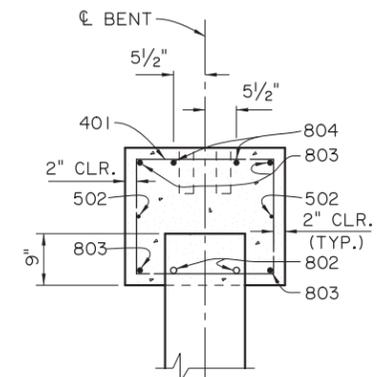
SHEET NUMBER		PARISH		CONTROL SECTION		STATE PROJECT	
DESIGN	B. DELATTE	CHECK	J. NAKHLEH	DRAWING	D. HYVEL	REVISION	7 OF 13
APPROVED BY CHIEF ENGINEER:		DATE: 12/10/2025		REVISION OR CHANGE ORDER DESCRIPTION		NO. DATE	
ALTERNATE BENTS (1 OF 2)		CAST-IN-PLACE CONCRETE BENTS		28'-0" CLEAR ROADWAY		45° CROSSING TWO WAY TANGENT	
DOTD		LOUISIANA DEPARTMENT OF TRANSPORTATION & DEVELOPMENT		PSS-45-28-20SL		STANDARD PLAN	



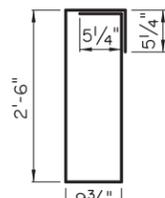
SECTION A-A
SCALE: 3/4" = 1'-0"



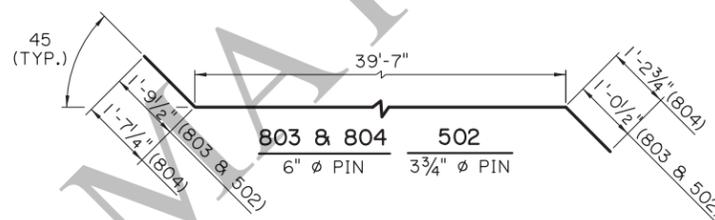
401
2" Ø PIN



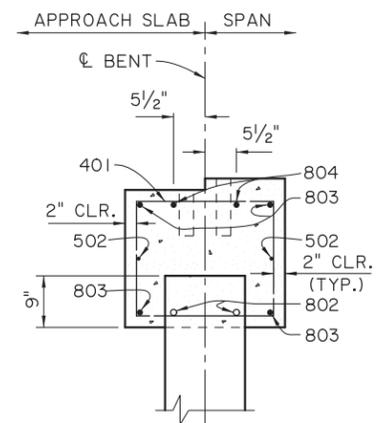
SECTION B-B
SCALE: 3/4" = 1'-0"
(WHEN PORTLAND CONCRETE ROADWAY PAVEMENT IS USED AT APPROACH SLAB)



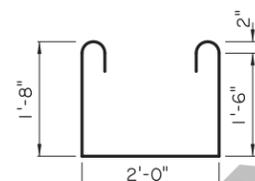
402
2" Ø PIN



803 & 804 6" Ø PIN
502 3 3/4" Ø PIN



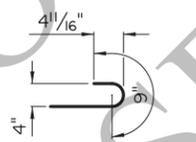
SECTION B-B
SCALE: 3/4" = 1'-0"
(WHEN ASPHALTIC CONCRETE ROADWAY PAVEMENT IS USED AT APPROACH SLAB)



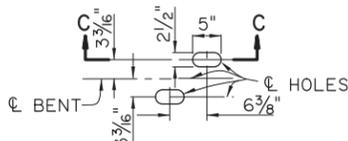
403
2" Ø PIN



802
6" Ø PIN



180° HOOK FOR 403 BARS
3" Ø PIN



DETAIL A
SCALE 3/4" = 1'-0"



SECTION C-C
SCALE 3/4" = 1'-0"

ALTERNATE BENT NOTES:

DESIGN SPECIFICATIONS: AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 4th EDITION, WITH 2008 & 2009 INTERIMS.

DESIGN LOAD: LIVE LOAD IS HL-93, AND LADV-11 (LOUISIANA DESIGN VEHICLE LIVE LOAD 2011).

STRUCTURAL CONCRETE: ALL CONCRETE SHALL BE CLASS A1. EXPOSED EDGES SHALL HAVE A 3/4" CHAMFER UNLESS SPECIFIED OTHERWISE. ALL EXPOSED FACES OF WINGWALLS AND ENDS OF CAPS SHALL RECEIVE A SURFACE FINISH AS PER THE SPECIFICATIONS UNLESS SPECIFIED OTHERWISE.

REINFORCING STEEL: ALL REINFORCING SHALL BE GRADE 60. DIMENSIONS RELATING TO FABRICATION ARE OUT TO OUT OF BARS, UNLESS SPECIFIED OTHERWISE. DIMENSIONS RELATING TO SPACING ARE TO BAR CENTERS, UNLESS SPECIFIED OTHERWISE.

PRECAST CONCRETE PILES: CONFORM TO PILE STANDARD PLAN AND PROJECT PLANS FOR FABRICATION AND INSTALLATION. IF TOP CENTER OF DRIVEN PILE IS OUTSIDE OF SPECIFIED HORIZONTAL TOLERANCES BUT WITHIN SPECIFIED VERTICAL TOLERANCES, PROVIDECAST-IN-PLACE BENT CAP IN ACCORDANCE WITH THIS STANDARD PLAN. PILES WILL BE PAID FOR UNDER THE DESIGNATED PILE PAY ITEMS.

PAYMENT: ALL OTHER WORK WILL BE PAID FOR UNDER THE DESIGNATED BRIDGE SUPERSTRUCTURE AND SUBSTRUCTURE PAY ITEM AND IN ACCORDANCE WITH THE SPECIFICATIONS.

ESTIMATED QUANTITIES (ONE INTER. BENT)				
BAR NO.	UNIT LENGTH	TOTAL LENGTH	LOCATION	
801	6	45'-8"	274'-0"	LONGIT. IN CAP
802	8	10'-1"	80'-8"	LONGIT. IN CAP BTW. PILES
TOTAL NO. 8 BARS = 354'-8"			= 947 LBS.	
501	2	45'-8"	91'-4"	LONGIT. IN CAP
TOTAL NO. 5 BARS = 91'-4"			= 95 LBS.	
401	52	8'-2"	424'-8"	STIRRUPS IN CAP
403	8	6'-6"	52'-0"	STIRRUPS IN CAP
TOTAL NO. 4 BARS = 476'-8"			= 318 LBS.	
TOTAL DEFORMED REINFORCING STEEL = 1360 LBS.				
TOTAL CLASS A1 CONCRETE = 7.67 CU. YDS.				
MAX. PILE LOAD: SERVICE DEAD LOAD = 22 TONS				
SERVICE LIVE LOAD = 33 TONS				
FACTORED TOTAL LOAD = 76 TONS				

16" Ø PPC PILES USED FOR ESTIMATING PURPOSES ONLY. (ADD 0.06 CU. YDS. OF CLASS A1 CONCRETE PER BENT WHEN 14" Ø PPC PILES ARE USED.)

ESTIMATED QUANTITIES (ONE END BENT)				
BAR NO.	UNIT LENGTH	TOTAL LENGTH	LOCATION	
802	8	10'-1"	80'-8"	LONGIT. IN CAP BTW. PILES
803	4	42'-5"	169'-8"	LONGIT. IN CAP
804	2	42'-5"	84'-10"	LONGIT. IN CAP
TOTAL NO. 8 BARS = 335'-2"			= 895 LBS.	
502	2	42'-5"	84'-10"	LONGIT. IN CAP
TOTAL NO. 5 BARS = 84'-10"			= 88 LBS.	
401	48	8'-2"	392'-0"	STIRRUPS IN CAP
402	8	7'-6"	60'-0"	STIRRUPS IN WINGWALL
403	8	6'-6"	52'-0"	STIRRUPS IN CAP
404	4	2'-2"	8'-8"	LONGIT. IN WINGWALL
405	12	3'-11"	47'-0"	LONGIT. IN WINGWALL
TOTAL NO. 4 BARS = 559'-8"			= 374 LBS.	
TOTAL DEFORMED REINFORCING STEEL = 1,357 LBS.				
TOTAL CLASS A1 CONCRETE = 7.72 CU. YDS.				
MAX. PILE LOAD: SERVICE DEAD LOAD = 22 TONS				
SERVICE LIVE LOAD = 33 TONS				
FACTORED TOTAL LOAD = 76 TONS				

16" Ø PPC PILES USED FOR ESTIMATING PURPOSES ONLY. (ADD 0.06 CU. YDS. OF CLASS A1 CONCRETE PER BENT WHEN 14" Ø PPC PILES ARE USED.) ADD 0.31 CU. YDS. OF CLASS A1 CONCRETE PER BENT WHEN ASPHALTIC CONCRETE ROADWAY PAVEMENT IS USED AT APPROACH SLAB.

AS-DESIGNED RATING		
VEHICLE	RATING FACTOR	NOTES
HL-93 (INV)	1.333	
HL-93 (OPR)	1.729	
LADV-11 (INV)	1.026	MAGNIFICATION FACTOR = 1.3

SHEET NUMBER: _____

DESIGN: B. DELATTE
CHECK: J. NAKHLEH

DETAIL: D. HYMEL
CHECK: J. NAKHLEH

REVIEW: _____
SERIES: 18 OF 13

APPROVED BY CHIEF ENGINEER: _____
DATE: 12/10/2025

NO. _____ DATE _____

REVISION OR CHANGE ORDER DESCRIPTION: _____

BY _____

STATE OF LOUISIANA
DEPARTMENT OF TRANSPORTATION & DEVELOPMENT

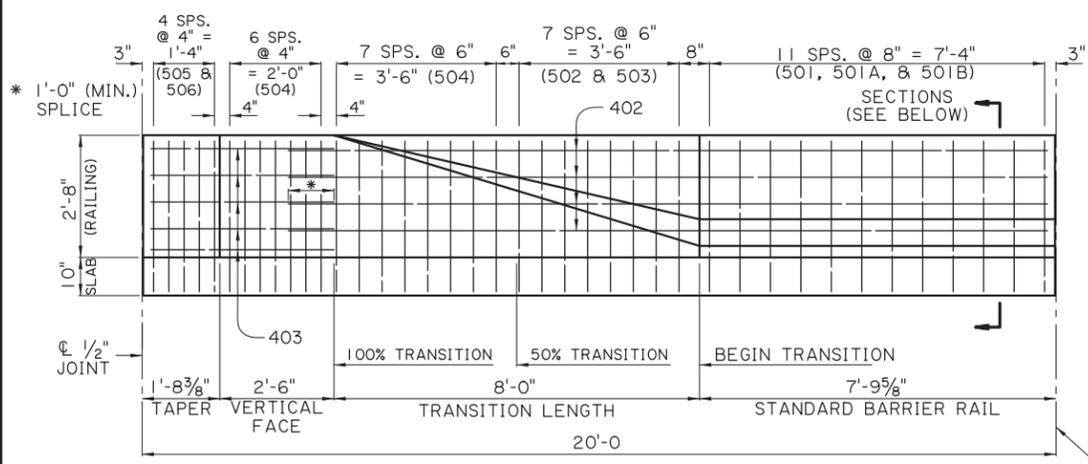
ALTERNATE BENTS (2 OF 2)
CAST-IN-PLACE CONCRETE BENTS

28'-0" CLEAR ROADWAY
45° CROSSING TWO WAY TANGENT

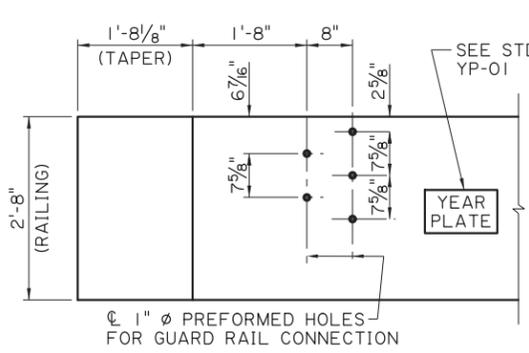
PSS-45-28-20SL

DOTD
LOUISIANA DEPARTMENT OF TRANSPORTATION & DEVELOPMENT

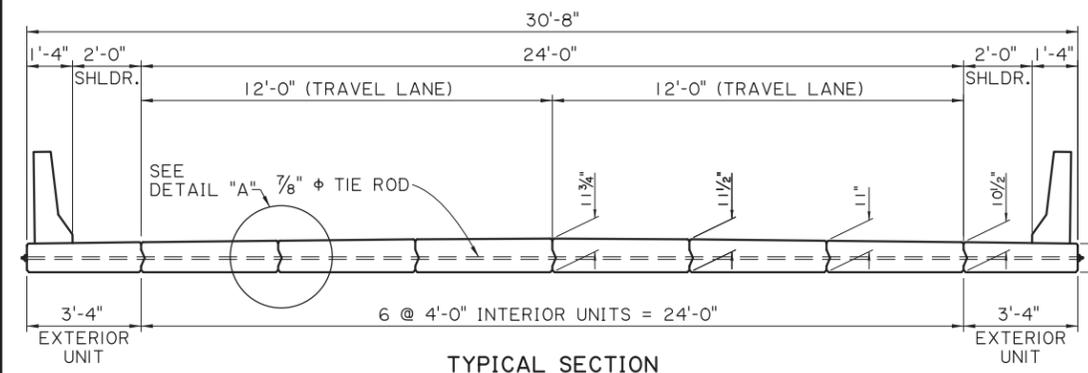
STANDARD PLAN



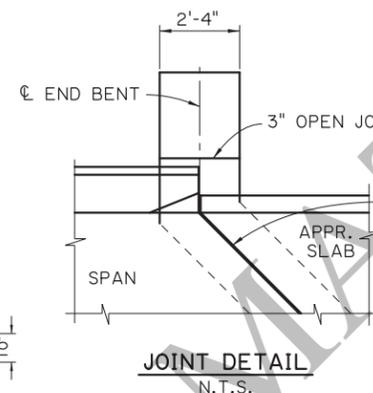
BARRIER RAILING TRANSITION ELEVATION
(SHOWING BARRIER RAILING AT END OF BRIDGE)
SCALE: 1/2" = 1'-0"



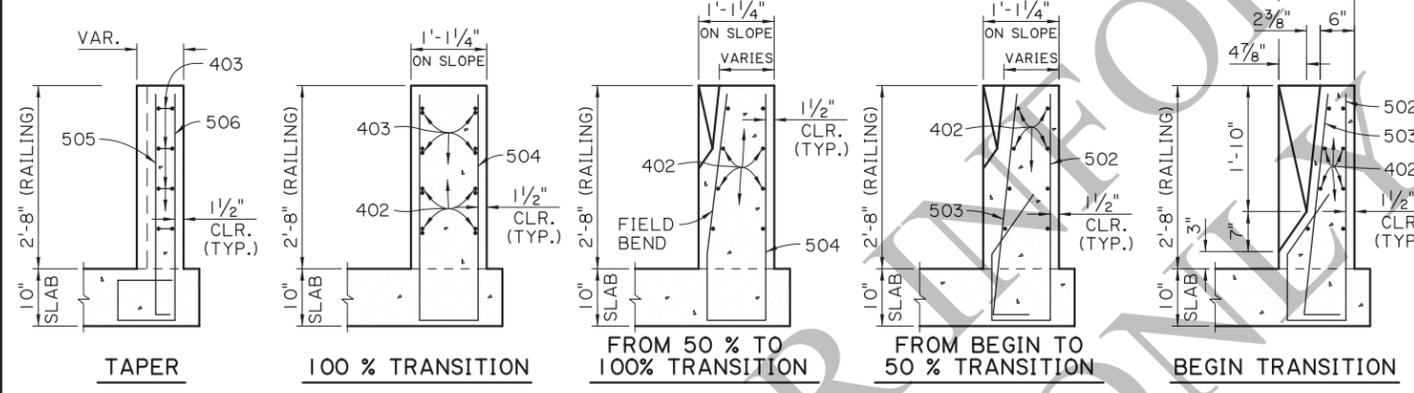
GUARD RAIL CONNECTION DETAIL
CONFORM TO GUARD RAIL STANDARDS
SCALE: 3/4" = 1'-0"



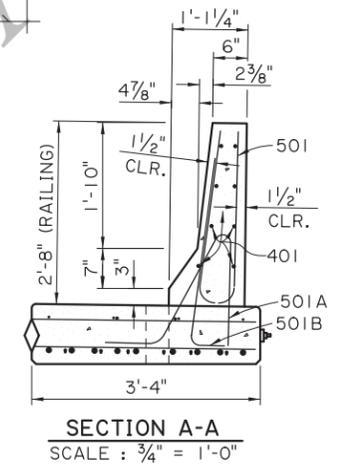
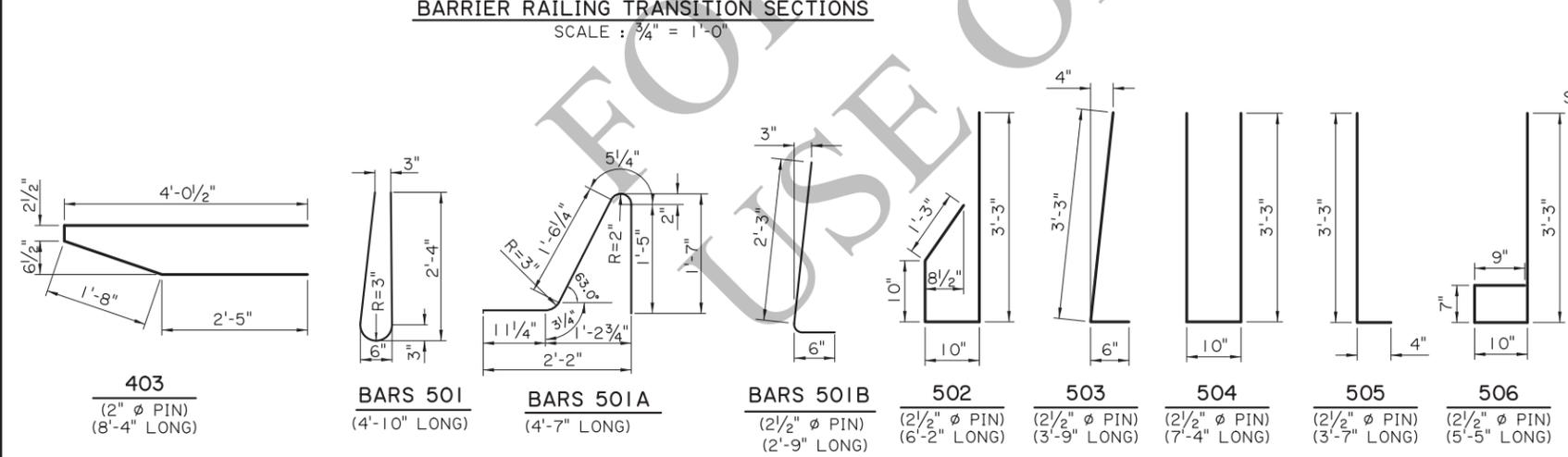
TYPICAL SECTION



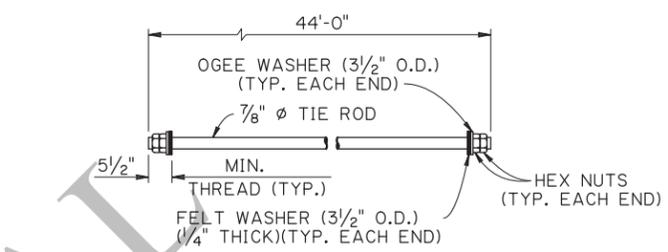
JOINT DETAIL
N.T.S.



BARRIER RAILING TRANSITION SECTIONS
SCALE: 3/4" = 1'-0"

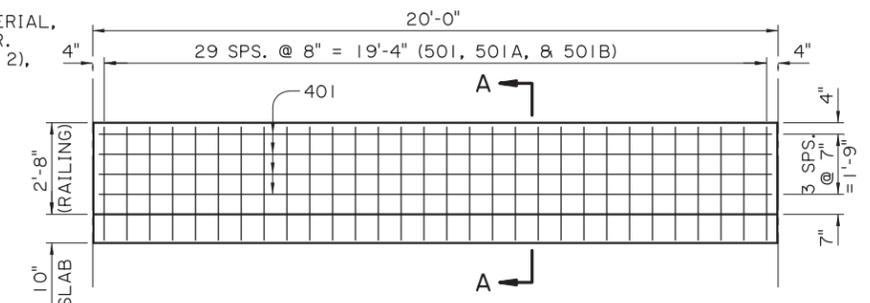


SECTION A-A
SCALE: 3/4" = 1'-0"

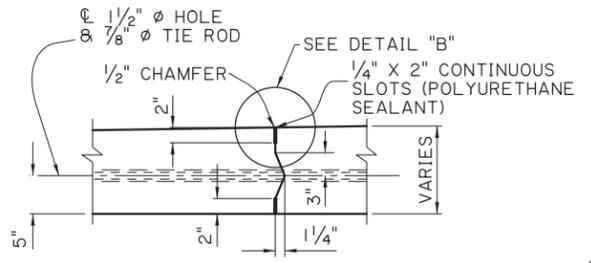


NOTE:
THE NUTS & WASHERS FOR THE TIE ROD SHALL BE ZINC COATED AND THE EXPOSED ENDS TO THE TIE RODS SHALL BE PAINTED WITH AN APPROVED COATING. AS A FINAL OPERATION THE CONTRACTOR SHALL BE REQUIRED TO TORQUE THE INSTALLED TIE ROD TO 170 FT. LBS. JUST PRIOR TO PAINTING. ALL EXPOSED ENDS SHALL BE PAINTED WITH AN APPROVED COATING AFTER STRESSING. ONE (1) MECHANICAL SPLICE MAY BE USED IN SPLICING THE 7/8" Ø TIE ROD. THE SPLICE SHALL DEVELOP AT LEAST 125% OF THE SPECIFIED YIELD STRENGTH OF THE TIE ROD IN TENSION. THE MECHANICAL SPLICE SHALL BE ZINC COATED OR PAINTED WITH AN APPROVED COLD GALVANIZING REPAIR COMPOUND FROM AML PRIOR TO PLACING THE TIE ROD IN THE STRUCTURE.

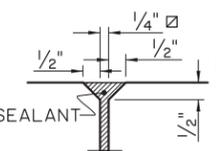
DETAILS OF TIE ROD



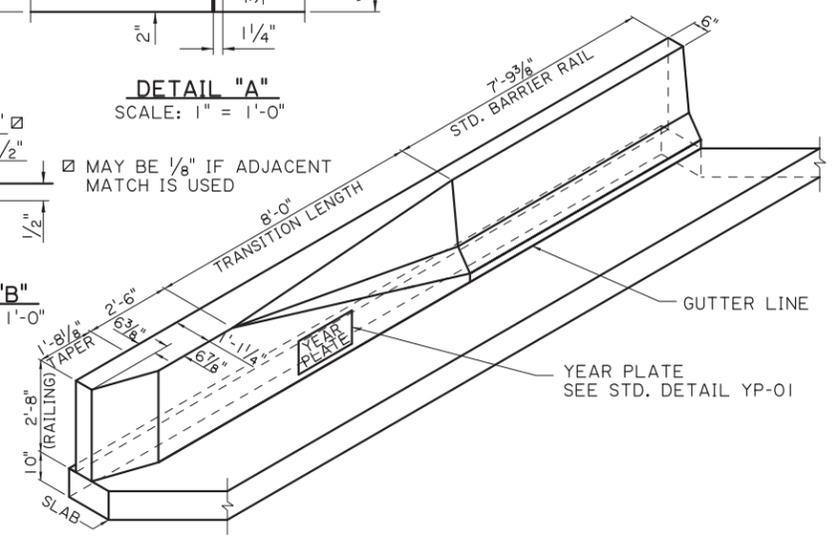
STANDARD BARRIER RAILING ELEVATION
(SHOWING BARRIER RAILING ALONG BRIDGE END)
SCALE: 3/8" = 1'-0"



DETAIL "A"
SCALE: 1" = 1'-0"

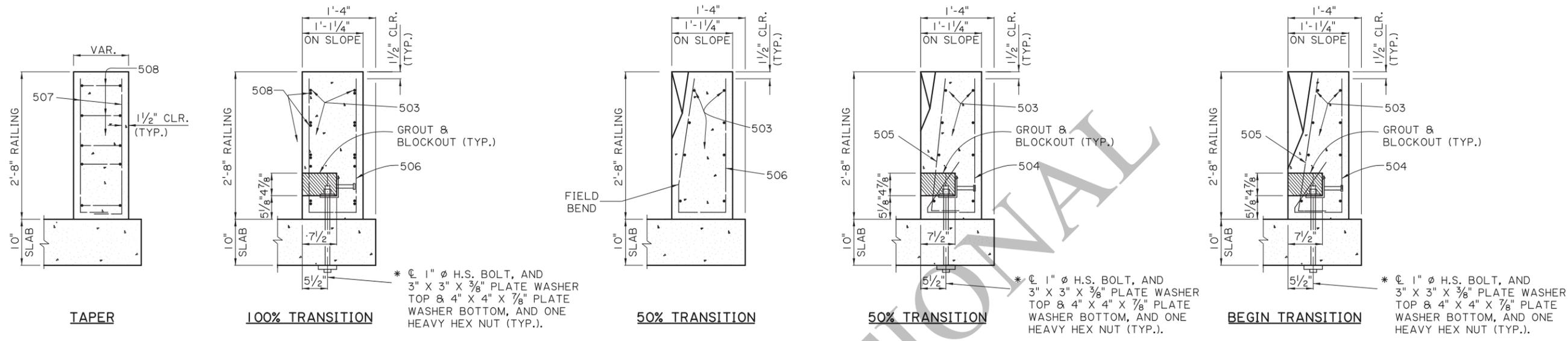


DETAIL "B"
SCALE: 1" = 1'-0"



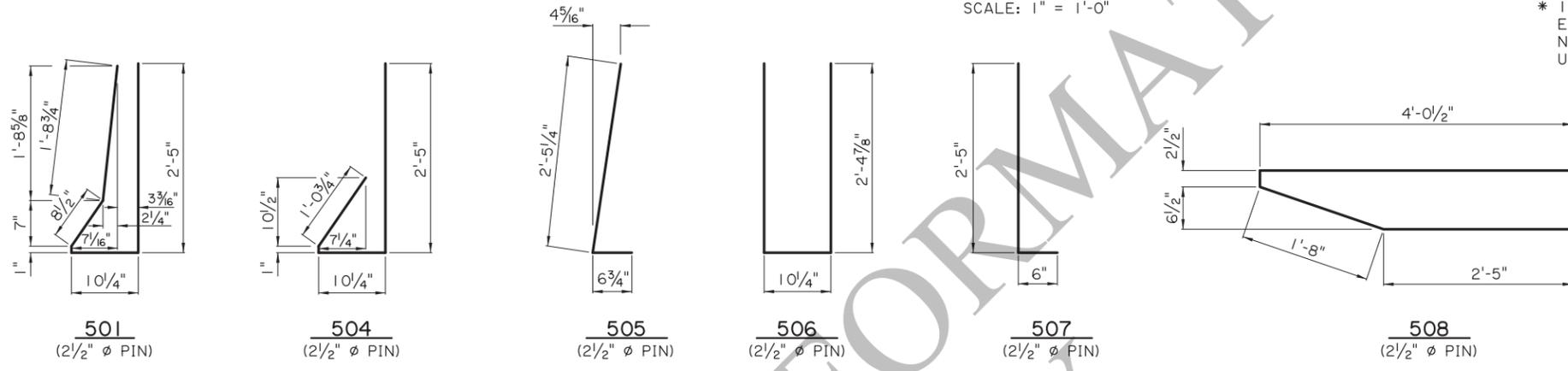
BARRIER RAILING TRANSITION SCHEMATIC
SCALE: 3/8" = 1'-0"

SHEET NUMBER		PARISH		CONTROL SECTION		STATE PROJECT	
DESIGN CHECK	B. DELATTE	PARISH	J. NAKHLEH	CONTROL SECTION	D. HYVEL	STATE PROJECT	J. NAKHLEH
DETAIL CHECK	J. NAKHLEH	REVIEW	J. NAKHLEH	DATE	12/10/2025	SERIES	19 OF 13
APPROVED BY CHIEF ENGINEER:							
REVISION OR CHANGE ORDER DESCRIPTION							
NO. DATE							
ALTERNATE SPAN (1 OF 4) 20'-0" PRECAST CONC. SLAB SPAN 28'-0" CLEAR ROADWAY 45° CROSSING TWO WAY TANGENT PSS-45-28-20SL							
STANDARD PLAN							



BARRIER RAILING TRANSITION SECTIONS

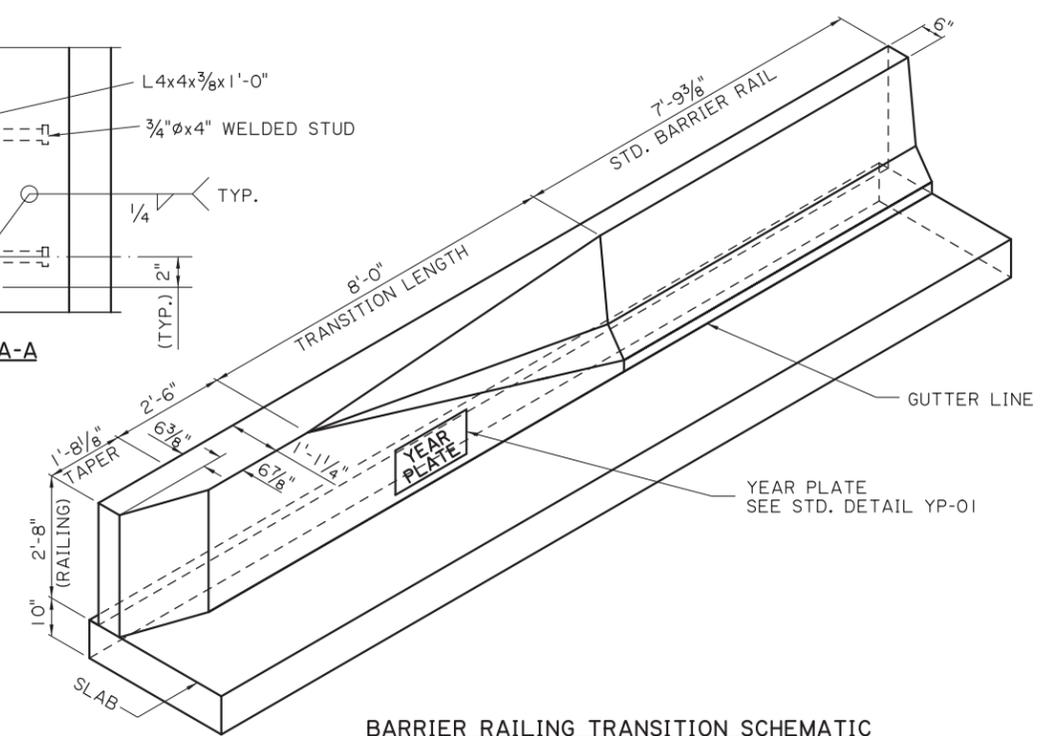
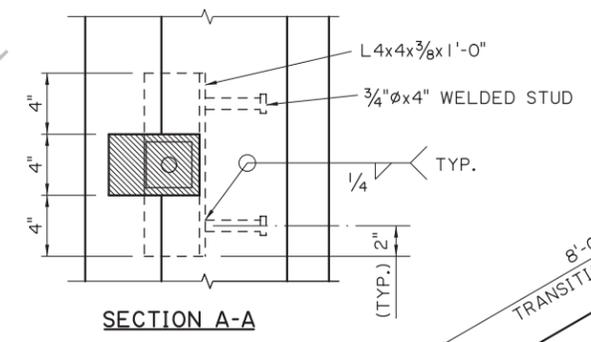
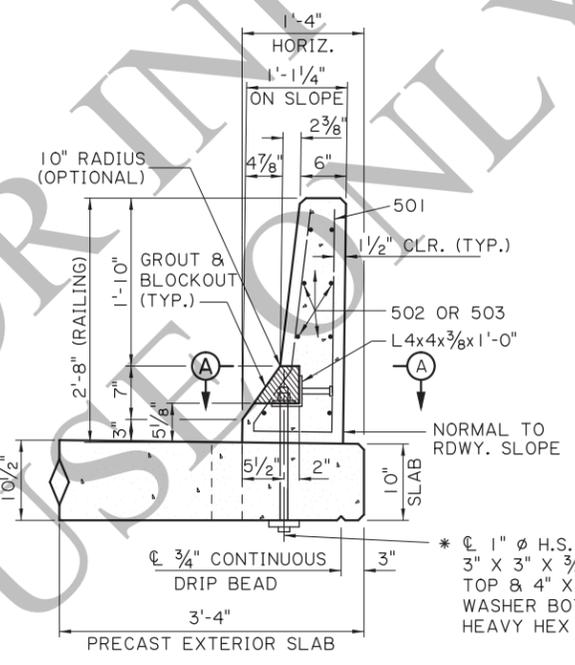
SCALE: 1" = 1'-0"



* 1" Ø THREADED STUD OF EQUAL STRENGTH, WITH 2 NUTS & 2 WASHERS, MAY BE USED IN LIEU OF H.S. BOLTS.

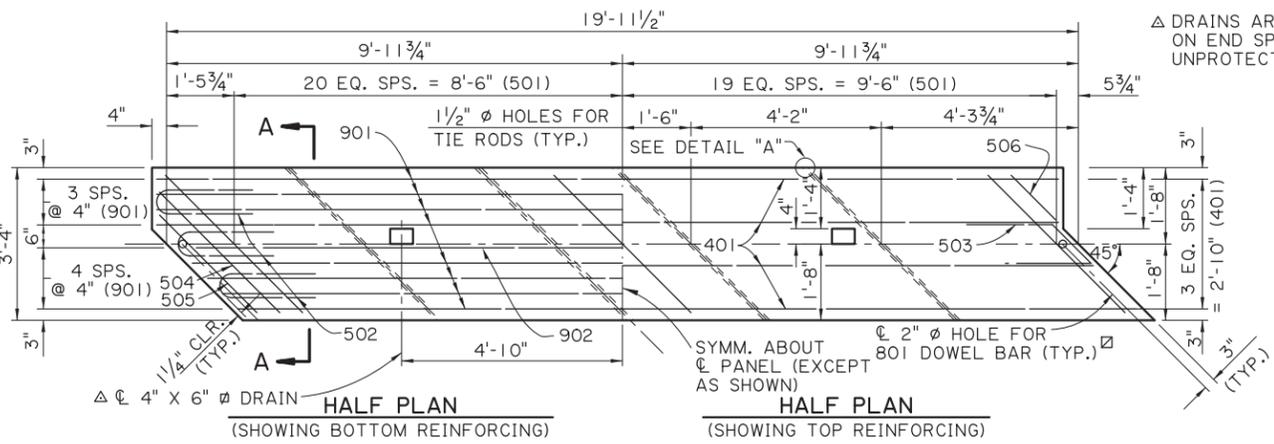
NOTES:

- 1) ALL BARRIER RAIL SURFACES ARE TO RECEIVE A CLASS 3 SPECIAL FINISH.
- 2) ALL SURFACES OF THE BLOCKOUTS EXCEPT THE BOTTOM MAY BE TAPERED AND ALL CORNERS MAY BE ROUNDED TO A RADIUS TO ALLOW FOR EASY REMOVAL OF PLUGS OR FORMS. AFTER PLACING AND TIGHTENING THE ANCHOR BOLTS, THE BLOCKOUTS SHALL BE FILLED WITH AN APPROVED NON-SHRINK GROUT FROM AML AND TROWELED TO THE REQUIRED FINISH AND TO THE SATISFACTION OF THE ENGINEER.
- 3) AFTER BARRIER IS PLACED AND ALIGNED, ALL GAPS UNDER BARRIER AND TOP OF SLAB SHALL BE FILLED WITH NON-SHRINK GROUT FROM AML AND ALLOWED TO SET PRIOR TO TIGHTENING OF BOLTS. IT IS IMPORTANT TO FILL ALL VOIDS AND GAPS UNDER THE BARRIER TO ENSURE EVEN BEARING ON DECK WHEN THE ANCHOR BOLTS ARE LOADED.
- 4) ALL 1" Ø BOLTS SHALL BE HIGH STRENGTH A325 OR APPROVED EQUAL. BOLT, NUT & WASHER TO BE GALVANIZED AS PER ASTM A-153. BOLTS SHALL BE TENSIONED TO 36 KIPS, OR APPROXIMATELY 540 FOOT-LB. OF TORQUE (LUBRICATED CONNECTION).

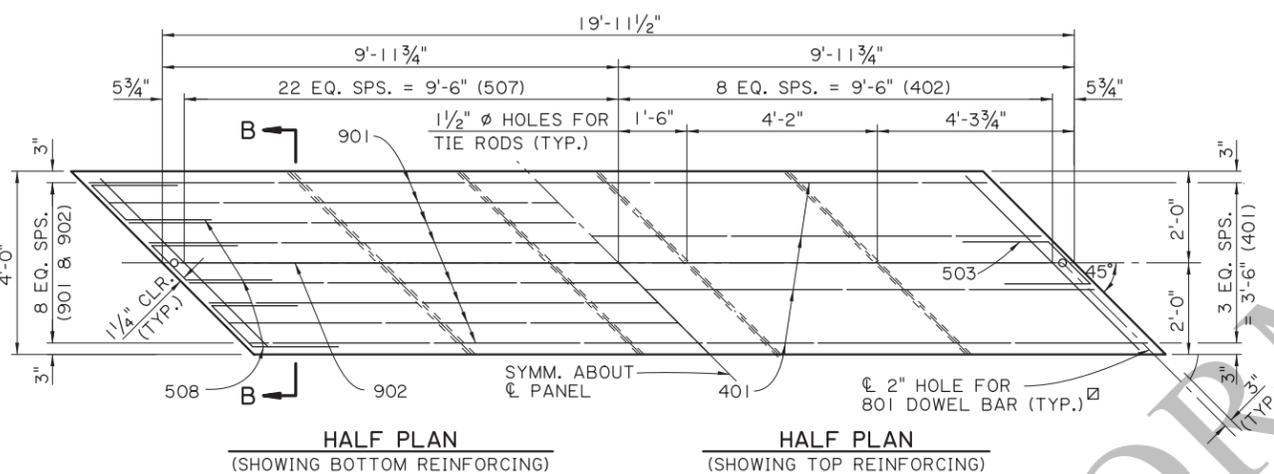


SHEET NUMBER		PARISH		CONTROL SECTION		STATE PROJECT	
DESIGN CHECK	B. DELATTE	DRAWING CHECK	J. NAKHLEH	REVIEW	J. NAKHLEH	SERIES #	11 OF 13
APPROVED BY CHIEF ENGINEER:		DATE:		12/10/2025			
REVISION OR CHANGE ORDER DESCRIPTION							
ALTERNATE SPAN (3 OF 4) 20'-0" PRECAST CONC. BARRIER 28'-0" CLEAR ROADWAY 45° CROSSING TWO WAY TANGENT PSS-45-28-20SL							
STANDARD PLAN							

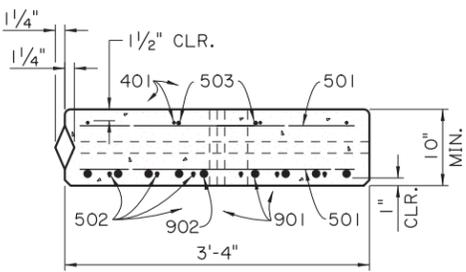
11/25/2025 08:11 IP_PWP:d1245750\SS4528altspan4 (LRFD) .dgn



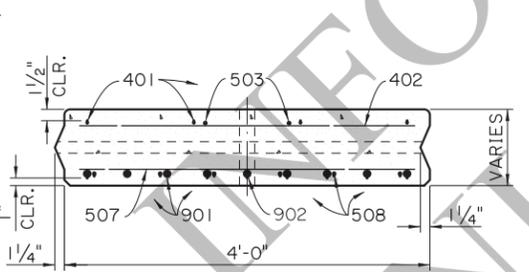
EXTERIOR UNIT
SCALE 1/2" = 1'-0"



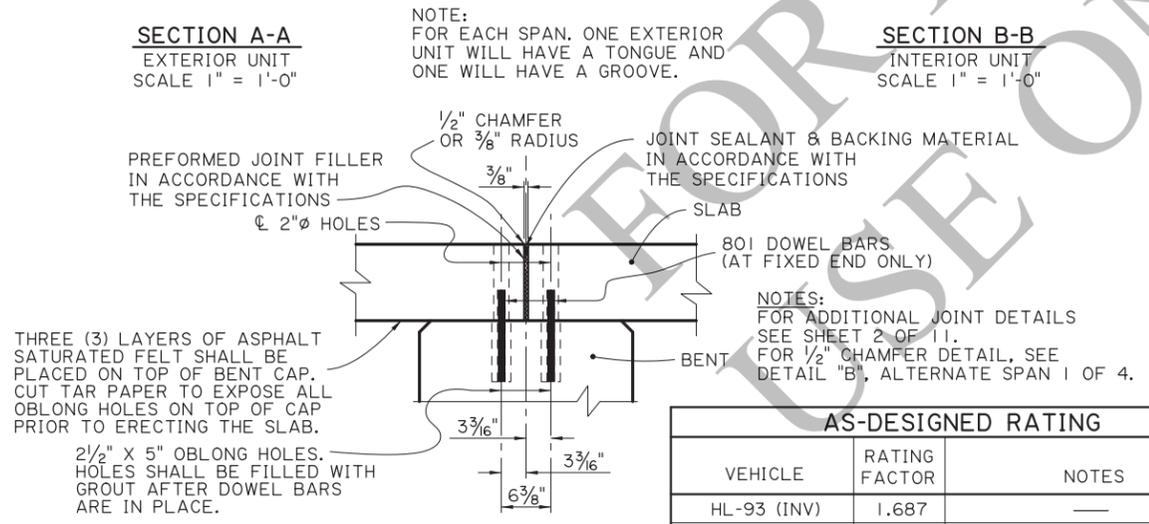
INTERIOR UNIT
SCALE 1/2" = 1'-0"



SECTION A-A
EXTERIOR UNIT
SCALE 1" = 1'-0"



SECTION B-B
INTERIOR UNIT
SCALE 1" = 1'-0"



TYPICAL JOINT DETAIL
SCALE: 1" = 1'-0"

AS-DESIGNED RATING		
VEHICLE	RATING FACTOR	NOTES
HL-93 (INV)	1.687	—
HL-93 (OPR)	2.187	—
LADV-11 (INV)	1.298	MAGNIFICATION FACTOR = 1.3

Δ DRAINS ARE NOT REQUIRED ON END SPANS OVER UNPROTECTED SLOPES.

ALTERNATE SPAN NOTES:

DESIGN SPECIFICATIONS : AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, WITH 2008 & 2009 INTERIMS.

DESIGN LOAD : THE BRIDGE DECK IS DESIGNED FOR A FUTURE WEARING COURSE OF 19 PSF. THE LIVE LOAD IS HL-93, AND LADV-11 (LOUISIANA DESIGN VEHICLE LIVE LOAD 2011).

STRUCTURAL CONCRETE: ALL CONCRETE SHALL BE CLASS P1. THE BRIDGE RAIL CONCRETE SHALL BE CLASS A1 IF RAIL IS CAST IN PLACE. STEEL SIDE FORMS AND STEEL OR CONCRETE BOTTOM FORMS SHALL BE USED FOR PRECAST COMPONENTS. EXPOSED EDGES SHALL HAVE A 3/4" CHAMFER, UNLESS SPECIFIED OTHERWISE. ALL SURFACES SHALL RECEIVE A CLASS 1 ORDINARY SURFACE FINISH UPON REMOVAL OF THE FORMS. THE FINAL FINISH SHALL BE A TINE FINISH IN ACCORDANCE WITH THE SPECIFICATIONS.

REINFORCING STEEL: ALL REINFORCING STEEL SHALL BE GRADE 60. DIMENSIONS RELATING TO FABRICATION ARE OUT TO OUT OF BARS, UNLESS SPECIFIED OTHERWISE. DIMENSIONS RELATING TO SPACING ARE TO BAR CENTERS, UNLESS SPECIFIED OTHERWISE. ALL REINFORCING BARS SHALL BE PLACED TO PROVIDE A MINIMUM COVER OF 1" FROM THE DRAIN HOLES. REINFORCING STEEL MAY BE TACK WELDED FOR A DISTANCE OF NOT MORE THAN 4'-0" FROM EACH END OF UNIT. NO OTHER WELDING SHALL BE PERMITTED.

MISCELLANEOUS STEEL: HIGH STRENGTH BOLTS SHALL CONFORM TO ASTM DESIGNATION A-325. PRESTRESSING STRANDS SHALL CONFORM TO ASTM DESIGNATION A-416, GRADE 270. PLATES, TIE RODS, AND DRIFT BOLTS SHALL CONFORM TO ASTM DESIGNATION A709, GRADE 36. STEEL SPECIFIED TO BE ZINC COATED SHALL BE IN CONFORMANCE WITH ASTM DESIGNATION A-123.

GROUT: THE GROUT SHALL BE AN APPROVED FLOWABLE NON-SHRINK GROUT LISTED ON AML. THE GROUT SHALL BE TESTED FOR ACCEPTANCE PRIOR TO USAGE. THE GROUT SHALL ATTAIN A MINIMUM COMPRESSIVE STRENGTH OF 3500 PSI PRIOR TO LOADING SLABS. SURFACES SHALL BE THOROUGHLY SATURATED WITH WATER BY FLOODING THE HOLES FOR APPROXIMATELY FIVE (5) MINUTES IMMEDIATELY BEFORE THE GROUT IS PLACED. ONLY POTABLE WATER SHALL BE USED FOR SATURATION AND MIXING PURPOSES.

PATCHING MATERIAL: THE PATCHING MATERIAL SHALL BE AN APPROVED PATCHING MATERIAL FOR PRECAST OR PRESTRESSED CONCRETE PRODUCTS LISTED ON AML. SURFACE PREPARATION, MIXING AND PLACEMENT SHALL BE IN ACCORDANCE WITH THE MANUFACTURERS' RECOMMENDATIONS. ONLY POTABLE WATER SHALL BE USED FOR SATURATION AND MIXING PURPOSES.

PRECAST UNITS: THE PLANS FOR AN ONGOING OPERATION OF FABRICATION FACILITIES SHALL BE APPROVED BY THE DEPARTMENT. EACH UNIT SHALL HAVE "LIVE LOAD HL-93 AND LADV-11", THE FABRICATOR'S MARK, AND UNIQUE NUMBER, MEETING THE APPROVAL OF THE ENGINEER STAMPED OR INSCRIBED IN THE PLASTIC CONCRETE. PRECAST UNITS MAY BE CAST WITH OR WITHOUT CAMBER. IF CAMBER IS PROVIDED IT SHALL NOT EXCEED 1/4" AT THE CENTERLINE OF SPAN. ALL UNITS SHALL BE HELD AT THE PLANT FOR A MINIMUM OF TEN(10) DAYS AFTER CASTING. THE CONCRETE SHALL REACH A MINIMUM STRENGTH OF 3,000 PSI BEFORE HANDLING IS PERMITTED. THE LIFTING INSERTS SHALL BE 1", TYPE S INSERTS AS MANUFACTURED BY DAYTON-SUPERIOR CORPORATION OR AN APPROVED EQUAL. EACH INSERT SHALL HAVE A MINIMUM LOAD CAPACITY OF 10,000 POUNDS. FOUR(4) INSERTS WITH 1" Ø X 5" LONG COIL BOLTS SHALL BE PLACED IN THE TOP OF THE UNIT AND LOCATED 1'-3" FROM ITS ENDS AND 1'-0" FROM ITS EDGES. INSERT HOLES SHALL BE GROUT FILLED AFTER PLACEMENT OF UNIT. AT THE CONTRACTOR'S OPTION A SLING OF SUFFICIENT CAPACITY MAY BE USED FOR LIFTING, PROVIDED THE SAME PICKUP LOCATION FROM THE ENDS ARE USED. FABRICATION TOLERANCES SHALL BE AS FOLLOWS:

- UNIT DEPTH ± 3/16"
- UNIT LENGTH + 1/8" AND -1/2"
- OVERALL SPAN WIDTH ± 2"

ALL PRECAST UNITS IN EACH BRIDGE SPAN SHALL BE MATCH CAST IN THE SAME CASTING BED TO ENSURE A PROPER FIT DURING INSTALLATION.

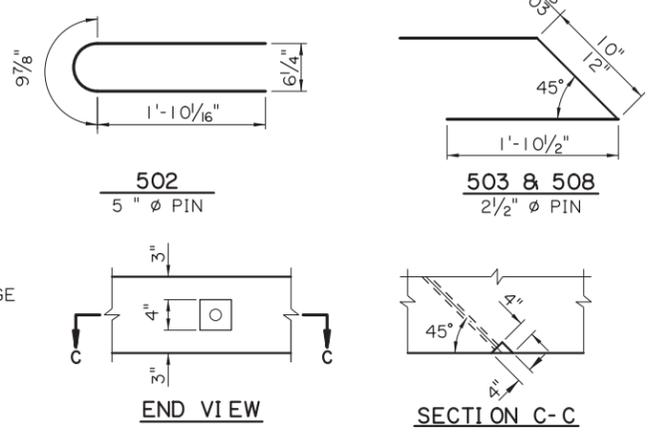
GUARDRAIL: CONFORM TO PROJECT PLANS AND GUARD RAIL STANDARD PLANS.

PAYMENT: ALL WORK WILL BE PAID FOR UNDER THE DESIGNATED BRIDGE SUPERSTRUCTURE AND SUBSTRUCTURE PAY ITEM AND IN ACCORDANCE WITH THE SPECIFICATIONS.

ESTIMATED QUANTITIES (ONE EXTERIOR UNIT)				
BAR NO.	UNIT LENGTH	TOTAL LENGTH	LOCATION	
901	8	19'-7"	156'-8"	LONGIT. BOT. OF SLAB
902	1	18'-11"	18'-11"	LONGIT. BOT. OF SLAB
TOTAL NO. 9 BARS = 175'-7" = 597 LBS.				
801	1	1'-0"	1'-0"	DOWELS
TOTAL NO. 8 BARS = 1'-0" = 3 LBS.				
501	80	4'-2"	333'-4"	TRANS. TOP & BOT. OF SLAB
502	6	4'-6"	27'-0"	TOP & BOT. END OF SLAB
503	2	4'-9"	9'-6"	TOP & BOT. END OF SLAB
504	2	3'-9"	7'-6"	TOP & BOT. END OF SLAB
505	2	3'-0"	6'-0"	TOP & BOT. END OF SLAB
506	2	1'-4"	2'-8"	TOP & BOT. END OF SLAB
TOTAL NO. 5 BARS = 386'-0" = 403 LBS.				
401	4	19'-7"	78'-4"	LONGIT. TOP OF SLAB
TOTAL NO. 4 BARS = 78'-4" = 52 LBS.				
DEFORMED REINFORCING STEEL = 1055 LBS.				
CLASS P1 CONCRETE = 2.05 CU. YDS.				
CONCRETE RAILING (PER SPAN) = 40.00 LIN. FT.				

ESTIMATED QUANTITIES (ONE INTERIOR UNIT)				
BAR NO.	UNIT LENGTH	TOTAL LENGTH	LOCATION	
901	8	19'-7"	156'-8"	LONGIT. BOT. OF SLAB
902	1	18'-11"	18'-11"	LONGIT. BOT. OF SLAB
TOTAL NO. 9 BARS = 175'-7" = 597 LBS.				
801	1	1'-0"	1'-0"	DOWELS
TOTAL NO. 8 BARS = 1'-0" = 3 LBS.				
503	2	4'-9"	9'-6"	TOP END OF SLAB
507	45	5'-2"	232'-6"	TRANS. BOT. OF SLAB
508	6	4'-7"	27'-6"	BOT. END OF SLAB
TOTAL NO. 5 BARS = 269'-6" = 282 LBS.				
401	4	19'-7"	78'-4"	LONGIT. TOP OF SLAB
402	17	4'-2"	70'-10"	TRANS. TOP OF SLAB
TOTAL NO. 4 BARS = 149'-2" = 100 LBS.				
DEFORMED REINFORCING STEEL = 982 LBS.				
CLASS P1 CONCRETE = 2.46 CU. YDS.				

⊙ BASED ON A 10" SLAB THICKNESS



DETAIL "A"
TYP. EXTERIOR EDGE ONLY
SCALE 1" = 1'-0"

STATE OF LOUISIANA
DEPARTMENT OF TRANSPORTATION & DEVELOPMENT

ALTERNATE SPAN (4 OF 4)
20'-0" PRECAST CONC. SLAB UNIT

28'-0" CLEAR ROADWAY
45° CROSSING TWO WAY TANGENT

PSS-45-28-20SL

STANDARD PLAN

APPROVED BY CHIEF ENGINEER: [Signature]

DATE: 12/10/2025

REVISION OR CHANGE ORDER DESCRIPTION

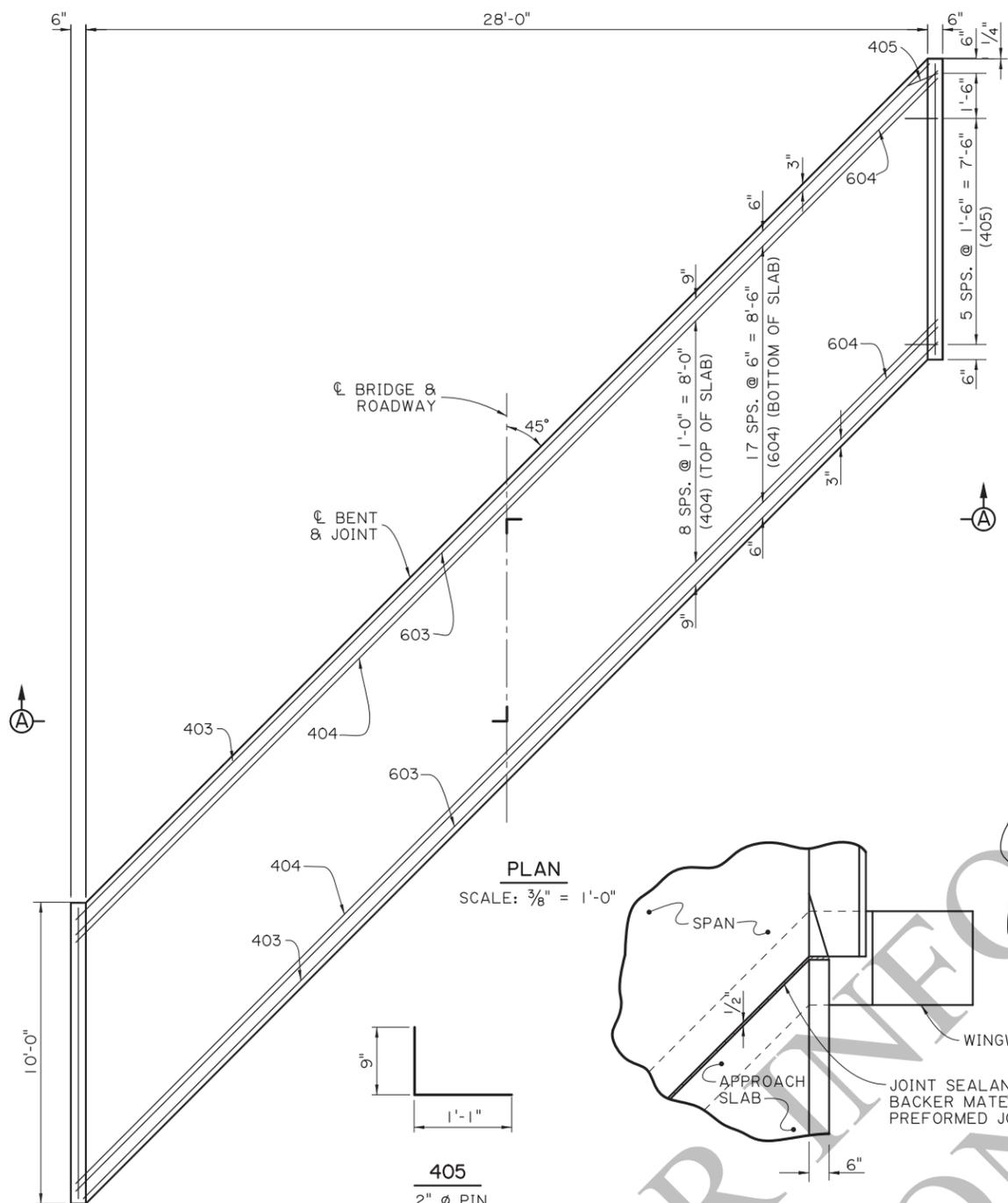
NO. DATE

BY

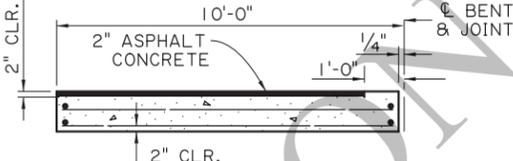
DESIGN: J. NAKHLEH
CHECK: B. DELATTE
DETAIL: D. HYWEL
CHECK: J. NAKHLEH
REVIEW: [Signature]

PARISH: [Blank]
CONTROL SECTION: [Blank]
STATE PROJECT: [Blank]

SHEET NUMBER: [Blank]

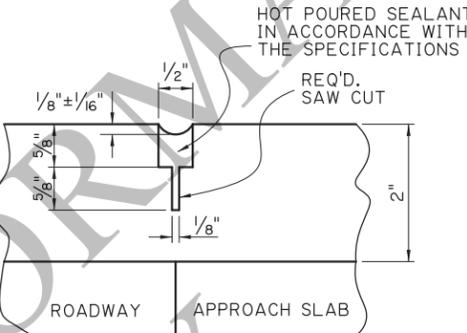


(FOR PORTLAND CEMENT CONCRETE ROADWAY PAVEMENT)

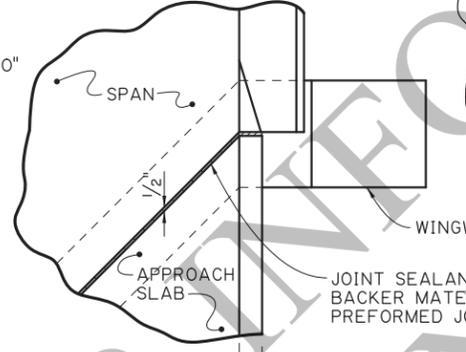


(FOR ASPHALT CONCRETE ROADWAY PAVEMENT)

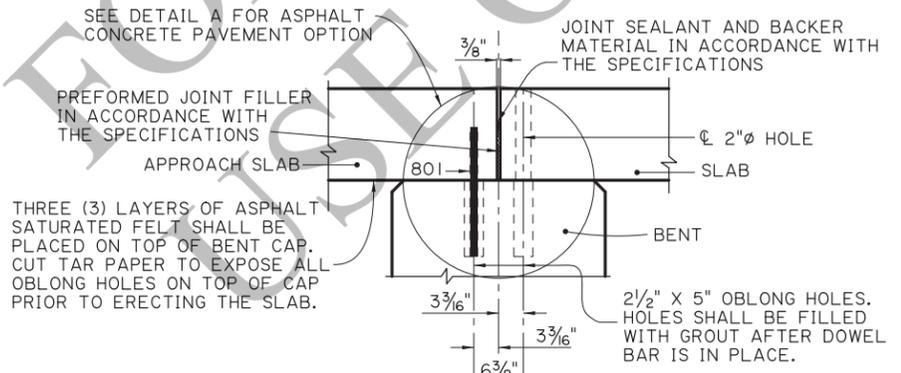
SECTION ALONG CL ROADWAY
SCALE: 1/4" = 1'-0"



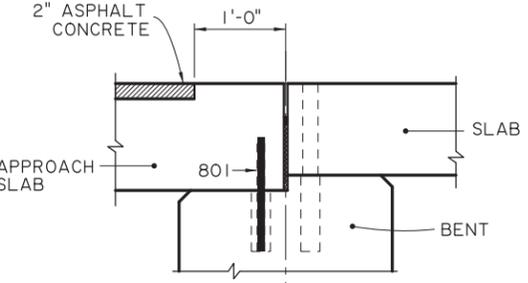
SAWING & SEALING JOINT DETAIL
N.T.S.



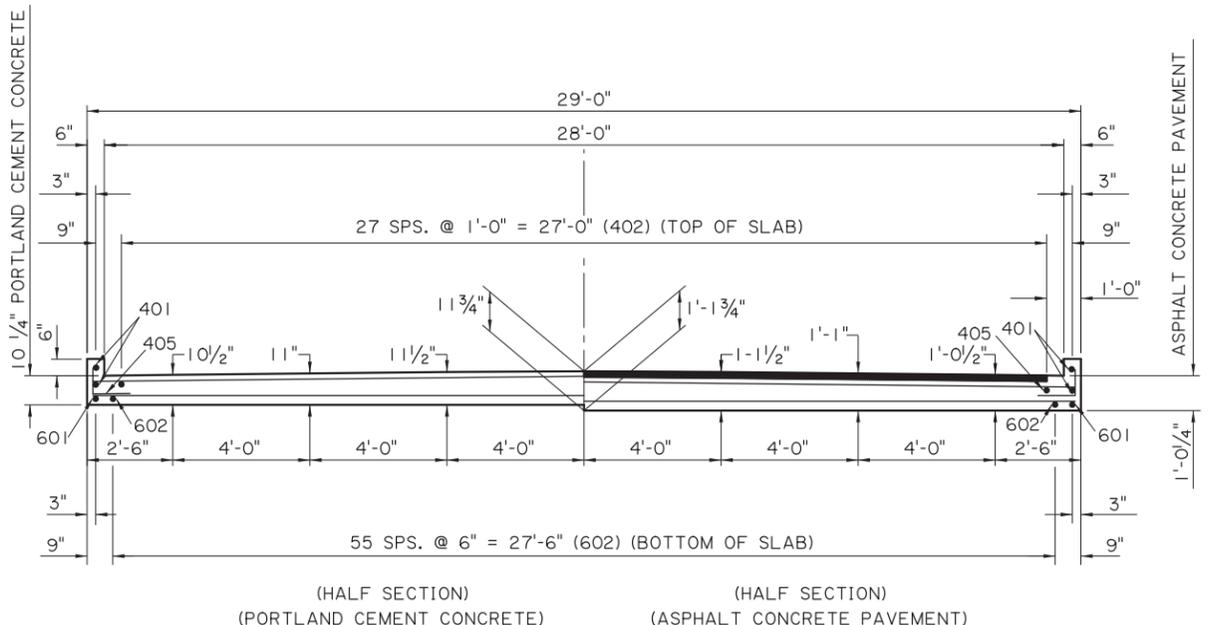
JOINT DETAIL
N.T.S.



TYPICAL JOINT DETAIL
SCALE: 1" = 1'-0"



DETAIL A
SCALE: 1" = 1'-0"
(ASPHALT CONCRETE PAVEMENT OPTION)



SECTION A-A
SCALE 3/8" = 1'-0"

ESTIMATED QUANTITIES (ONE SLAB)				
BAR NO.	UNIT LENGTH	TOTAL LENGTH	LOCATION	
801	8	1'-0"	8'-0"	DOWELS
TOTAL NO. 8 BARS = 8'-0" = 21 LBS.				
601	2	9'-7"	19'-2"	LONGIT. BOT. OF SLAB
602	56	9'-6"	532'-0"	LONGIT. BOT. OF SLAB
603	2	40'-1"	80'-2"	TRANSV. BOT. OF SLAB
604	18	40'-6"	729'-0"	TRANSV. BOT. OF SLAB
TOTAL NO. 6 BARS = 1,360'-4" = 2,043 LBS.				
401	4	9'-7"	38'-4"	LONGIT. TOP OF SLAB & CURB
402	28	9'-6"	266'-0"	LONGIT. TOP OF SLAB
* 403	2	41'-9"	83'-6"	TRANSV. TOP OF SLAB
* 404	9	42'-2"	379'-6"	TRANSV. TOP OF SLAB
405	14	1'-10"	25'-8"	DOWELS IN CURB
TOTAL NO. 4 BARS = 793'-0" = 530 LBS.				
TOTAL DEFORMED REINFORCING STEEL = 2,594 LBS.				
CONCRETE APPROACH SLAB = 32.22 SQ. YDS.				
ASPHALT CONCRETE = 3.0 TONS				
SAW CUT & SEAL = 38 LIN. FT.				

- TO BE PAID FOR UNDER ITEM CONCRETE APPROACH SLABS.
- * INCLUDES ONE (1) 1'-8" MINIMUM LAP SPLICE. ALL LAP SPLICES ARE TO BE STAGGERED.
- ☒ REQUIRED WHEN APPROACH SLAB IS ADJACENT TO ASPHALT CONCRETE PAVEMENT.

APPROACH SLAB NOTES:

DESIGN SPECIFICATIONS: AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 4th EDITION, WITH 2008 & 2009 INTERIMS.

STRUCTURAL CONCRETE: ALL CONCRETE SHALL BE CLASS A1. EXPOSED EDGES SHALL HAVE A 3/4" CHAMFER, UNLESS SPECIFIED OTHERWISE.

REINFORCING STEEL: ALL REINFORCING STEEL SHALL BE GRADE 60. DIMENSIONS RELATING TO THE FABRICATION ARE OUT-TO-OUT OF BARS, UNLESS SPECIFIED OTHERWISE. DIMENSIONS RELATING TO SPACING ARE TO BAR CENTERS, UNLESS SPECIFIED OTHERWISE.

BEDDING MATERIAL: FOR DETAILS OF BEDDING MATERIAL AND UNDERDRAINS SEE APPROACH SLAB STANDARD DETAILS.

SAWING & SEALING: THE ASPHALT CONCRETE SHALL BE SAW CUT AT THE END OF THE CONCRETE APPROACH SLAB THE ENTIRE ROADWAY WIDTH AND SEALED WHICH WILL BE PAID FOR UNDER THE DESIGNATED ROADWAY PAY ITEM.

PAYMENT: ALL OTHER WORK WILL BE PAID FOR UNDER THE DESIGNATED BRIDGE CONCRETE APPROACH SLAB PAY ITEM AND IN ACCORDANCE WITH THE SPECIFICATIONS.

SHEET NUMBER

PARISH

CONTROL SECTION

STATE PROJECT

DESIGN BY: B. DELATTE

CHECK BY: J. NAKHLEH

DETAIL BY: D. HYMEL

CHECK BY: J. NAKHLEH

REVIEW BY: J. NAKHLEH

APPROVED BY CHIEF ENGINEER: [Signature]

DATE: 12/10/2025

REVISION OR CHANGE ORDER DESCRIPTION

NO. DATE

BY

STATE OF LOUISIANA

ALTERNATE APPROACH SLAB 10'-0" CAST-IN-PLACE

28'-0" CLEAR ROADWAY 45° CROSSING TWO WAY TANGENT

PSS-45-28-20SL

DOTD LOUISIANA DEPARTMENT OF TRANSPORTATION & DEVELOPMENT

STANDARD PLAN